LAS CANOAS ROAD SB FACILITY

WATER UTILITIES IMPROVEMENTS

PROJECT INFORMATION

SCOPE OF WORK

PROJECT SCOPE OF WORK INCLUDES THE COMPLETE REPLACEMENT OF THE DOMESTIC WATER AND FIRE SPRINKLER WATER SUPPLY LINES TO THE SUBJECT PROPERTY. PROJECT SCOPE INCLUDES DESIGN OF A NEW FIRE SPRINKLER PUMP SYSTEM WITHIN A NEW ENCLOSURE NEAR THE LAS CANOAS ROAD ENTRANCE, AND REPLACEMENT OF THE EXISTING DOMESTIC WATER PUMP SYSTEM WITHIN THE EXISTING PUMP HOUSE. ADDITIONAL SITE IMPROVEMENTS INCLUDE ASSOCIATED LANDSCAPING, IRRIGATION, AND GRADING AS DETAILED IN THESE DRAWINGS.

APPLICABLE CODES

- LIST OF 2016 CALIFORNIA CODE OF REGULATIONS
- APPLICABLE CODES AS OF JANUARY 01, 2017 2019 CALIFORNIA ADMINISTRATIVE CODE (CAC)
- PART 1, TITLE 24, CALIFORNIA CODE OF REGUALTIONS (CCR) 2019 CALIFORNIA BUILDING CODE (CBC) PART 2, TITLE 24, CCR
- BASED ON THE 2015 INTERNATIONAL BUILDING CODE (IBC) 2019 CALIFORNIA ELECTRICAL CODE (CEC) PART 3, TITLE 24, CCR
- BASED ON THE 2014 NATIONAL ELECTRIC CODE (NEC) 2019 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24, CCR
- BASED ON THE 2015 UNIFORM MECHANICAL CODE (UMC) 2019 CALIFORNIA PLUMBING CODE (CPC) PART 5, TITLE 24, CCR
- BASED ON THE 2015 UNIFORM PLUMBING CODE (UPC) 2019 CALIFORNIA FIRE CODE (CFC) PART 9, TITLE 24, CCR
- BASED ON THE 2015 INTERNATIONAL FIRE CODE (IFC) 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBSC)

SITE KEY PLAN

DRAWING INDEX

G-001 TITLE SHEET / GENERAL INFORMATION

C-101 WATER SYSTEM IMPROVEMENT PLAN

A-101 TYPICAL FIRE PUMP ENCLOSURE

C-102 WATER SYSTEM IMPROVEMENT PLAN OVERVIEW <u>ARCHITECTURAL</u>

- <u>LANDSCAPE</u> LI-1 IRRIGATION PLAN LI-2 IRRIGATION DETAILS LI-3 IRRIGATION SPECIFICATIONS LP-1 PLANTING PLAN LP-2 PLANTING ENLARGEMENT WEST LP-3 PLANTING ENLARGEMENT EAST LP-4 PLANTING DETAILS LP-5 PLANTING SPECIFICATIONS
- E1.0 SYMBOLS, SPECS & SCHEDULES E1.1 SITE PLAN

AREA OF WORK

LSK-1 IMAGES & PERSPECTIVES

LSK-2 EXISTING SITE IMAGES

PROJECT DATA

DINING HALL & KITCHEN

DORMITORY HOUSING

FACULTY RESIDENCE

TOTAL EXISTING SF

PROPOSED PUMP HOUSE

TOTAL EXISTING & PROPOSED SF

CLASSROOM & LIBRARY

CONVENT

WORKSHOP

GYMNASIUM

PUMP HOUSE

PROJECT ADDRESS: **EXISTING IMPERVIOUS AREAS:** 1964 LAS CANOAS ROAD 6,557 SF CHAPEL W/ MEETING ROOM SANTA BARBARA, CA 93105 FACULTY RESIDENCE 7,289 SF 6,974 SF DINING HALL & KITCHEN 021-010-028 CONVENT 4,709 SF ZONING: A - 13,944 SF CLASSROOM & LIBRARY CURRENT USE: RESIDENTIAL GROUP R-2.1 DORMITORY HOUSING 6,421 SF 35.69 ACRES LOT SIZE: GYMNASIUM 14,681 SF AVERAGE SLOPE: 33% WORKSHOP 1,125 SF 27 SPACES & 30+ SPACES IN 2 LOTS PARKING: GENERATOR ENCLOSURE 181 SF PUMP HOUSE 251 SF **BUILDINGS:** FLOOR AREA: 5,596 SF BREEZEWAYS CHAPEL W/ MEETING ROOM 7,751 SF 4,663 SF SIDEWALKS

5,129 SF

3,562 SF

10,552 SF

5,880 SF

920 SF

12,150 SF

5,804 SF

186 SF

48,846 SF

TOTAL	139,351 SF
NEW IMPERVIOUS AREA:	AREA:
NEW IMPERVIOUS (PUMP HOUSE)	325 SF
REPLACED IMPERVIOUS WITH PERVIOUS	5,320 SF
REPLACED PERVIOUS	4,120 SF
TOTAL NEW IMPERVIOUS	325 SF

54,144 SF

<u> 19,728 SF</u>

DRIVEWAY

GYMNASIUM PARKING

TOTAL NEW AND/OR REPLACED PERVIOUS 9,440 SF 49,171 SF

`--—--

VICINITY/MAP

Ace of Shades CIELITO

RCHITECT 802 EAST COTA STREET, SUITE A SANTA BARBARA, CA 93103

TEL (805) 963-1955

CONSULTANTS

TEL (805) 966-2758

SUZANNE ELLEDGE PLANNING & PERMITTING SERVICES 1625 State Street Santa Barbara, CA 93101

CIVIL ENGINEER LOWERS & ASSOCIATES, INC. 201 N. Calle Cesar Chavez, Suite 100 Santa Barbara, CA 93103 TEL (805) 966-2224

ANDSCAPE ARCHITECT ARCADIA STUDIO, INC. 202 East Cota Street Santa Barbara, CA 93101 TEL (805) 962-9055

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TEL (805) 957-4632

ARCHITECT STAMP	CONSULTANT STAMP
C-29353 OF CALLED	

AGENCY APPROVAL

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#	ONS	
REVISI	ONS	

DESCRIPTION

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PROJECT OWNER & TITLE

REVERE CAPITAL, LLC 2301 CEDAR SPRINGS RD, SUITE 200

DALLAS, TX 75201

WATER UTILITIES IMPROVEMENTS

1964 LAS CANOAS ROAD SANTA BARBARA, CA 93105

TITLE SHEET / GENERAL INFORMATION

JOB NUMBER: 18045.04 SHEET NO.

DATE: JANUARY 17, 2020

STAFF HEARING OFFICER RESOLUTION



APRIL 8, 2020 APPLICATION OF HEIDI JONES, APPLICANT FOR P3 SANTA BARBARA LLC, 1964 LAS CANOAS ROAD, APN 021-010-028, RS-1A ZONE, GENERAL PLAN DESIGNATION: LOW DENSITY RESIDENTIAL (MAX 1 DU/AC) (PLN2019-00426)

The 35-acre site is located within the Extreme Foothill High Fire Hazard Area, and is currently developed with a residential rehabilitation treatment center. The proposed project involves construction of a new 325 square foot accessory structure to house a new fire sprinkler pump system that will provide critical fire infrastructure to service the property's fire protection system. The project also includes the complete replacement of the existing domestic water and fire sprinkler water supply lines to the subject property, and replacement of the domestic water pump system located within the existing pump house. Other site alterations include associated site landscaping, irrigation, and grading.

CITY OF SANTA BARBARA STAFF HEARING OFFICER

RESOLUTION NO. 005-20

1964 LAS CANOAS RD

MODIFICATION

The discretionary application under the jurisdiction of the Staff Hearing Officer required for this project is a Front Yard Modification to allow a detached accessory building to be located within the Front Yard (SBMC §30.140.020 and SBMC §30.250.030.B). The Environmental Analyst has determined that the project is exempt from further environmental review pursuant to the California Environmental Quality Act Guidelines Section 15301 (Existing Facilities) and 15305 (Minor Alterations in Land Use Limitations).

- WHEREAS, the Staff Hearing Officer has held the required public hearing on the above application, and the Applicant was present. WHEREAS, no one appeared to speak, and the following exhibits were presented for the record: Staff Report with Attachments, March 19, 2020
- NOW, THEREFORE BE IT RESOLVED that the City Staff Hearing Officer: Approved the subject application, making the finding and determination that the Front Yard Modification is consistent with the purposes and intent of the Zoning Ordinance and is necessary to secure an appropriate improvement on the lot because it allows for a the construction of an accessory structure to house a fire sprinkler pump system on a parcel located within the extreme high-fire hazard area. The requested Modification is consistent with the general purpose of the single unit zone because the location of the proposed structure is setback approximately 160 feet from the front property line and will not cause adverse impacts to the visual openness of the street

STAFF HEARING OFFICER RESOLUTION NO. 005-20 1964 LAS CANOAS RD APRIL 8, 2020

- frontage, and the structure will be screened from the public street due to the existing site topography and the proposed site landscaping.
- II. Said approval is subject to the following condition: Archaeological Resources Contractor Notification. Standard discovery measures shall be implemented per the City master Environmental Assessment throughout grading and construction: Prior to the start of any vegetation or paving removal, demolition, trenching or grading, contractors and construction personnel shall be alerted to the possibility of uncovering unanticipated subsurface archaeological features or artifacts. If such archaeological resources are encountered or suspected, work shall be halted immediately, the City Environmental Analyst shall be notified and the Owner shall retain an archaeologist from the most current City Qualified Archaeologists List. The latter shall be employed to assess the nature, extent and significance of any discoveries and to develop appropriate management recommendations for archaeological resource treatment, which may include, but are not limited to, redirection of grading and/or excavation activities, consultation and/or monitoring with a Barbareño Chumash representative

from the most current City qualified Barbareño Chumash Site Monitors List, etc. If the discovery consists of possible human remains, the Santa Barbara County Coroner shall be contacted immediately. If the Coroner determines that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission. A Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

If the discovery consists of possible prehistoric or Native American artifacts or materials, a Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization. A final report on the results of the archaeological monitoring shall be submitted by the City approved archaeologist to the Environmental Analyst within 180 days of completion of the monitoring and prior to any certificate of occupancy for the project.

This motion was passed and adopted on the 8th day of April, 2020 by the Staff Hearing Officer of the City of Santa Barbara.

PLEASE BE ADVISED:

(10) days after the date the action was taken by the Staff Hearing Officer. Officer approval null and void.

STAFF HEARING OFFICER RESOLUTION No. 005-20 1964 LAS CANOAS RD APRIL 8, 2020 Barbara Staff Hearing Officer at its meeting of the above date.

I hereby certify that this Resolution correctly reflects the action taken by the City of Santa

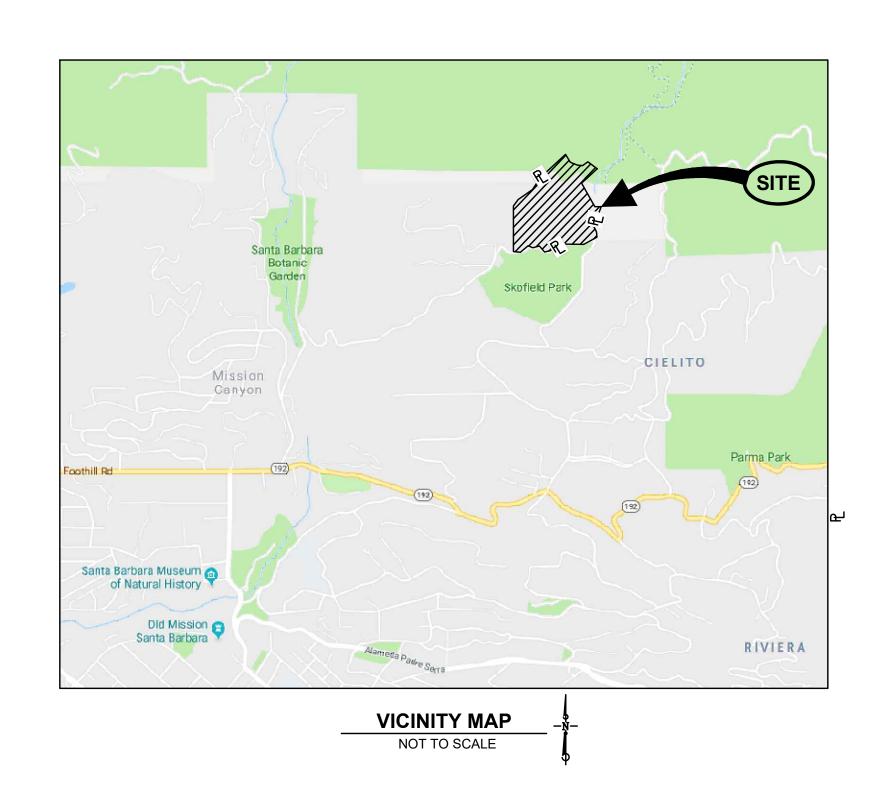
 This action of the Staff Hearing Officer can be appealed to the Planning Commission within ten 2. If the scope of work exceeds the extent described in the Modification request or that which was represented to the Staff Hearing Officer at the public hearing, it may render the Staff Hearing

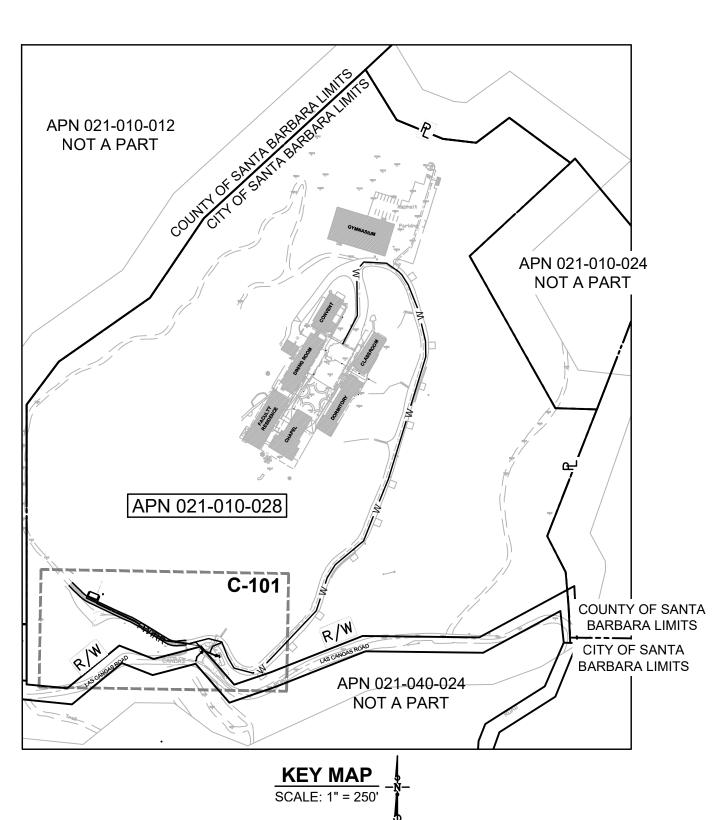
3. If you have any existing zoning violations on the property, other than those included in the conditions above, they must be corrected within thirty (30) days of this action. 4. PLEASE NOTE: A copy of this resolution shall be reproduced on the first sheet of the drawings submitted with the application for a building permit. The location, size and design of the construction proposed in the application for the building permit shall not deviate from the location, size and design of construction approved in this modification. NOTICE OF APPROVAL TIME LIMITS: The Staff Hearing Officer's action approving the Performance Standard Permit or Modifications shall expire three (3) years from the date of the approval, per SBMC \$30,205 120 unless: a. A building permit for the construction authorized by the approval is issued within thirty six months of the approval. (An extension may be granted by the Staff Hearing Officer if the construction authorized by the permit is being diligently pursued to completion.) b. The approved use has been discontinued, abandoned or unused for a period of six months following the earlier of: an Issuance of a Certificate of Occupancy for the use, or; ii. one (1) year from granting the approval.

PRELIMINARY WATER SYSTEM IMPROVEMENT PLANS

LAS CANOAS FACILITY

CITY OF SANTA BARBARA, CALIFORNIA APN NO. 021-010-028





AERIAL TOPOGRAPHY PROVIDED BY

CENTRAL COAST AERIAL MAPPING, INC.
710 FIERO LN. #24
SAN LUIS OBISPO, CALIFORNIA 93401
TEL: (805) 543-4307 FAX: (805) 543-7257
MAIL@AERIAL-MAPS.COM
CONTOUR INTERVAL: 1' COMPILATION SCALE: 1" = 40'
PHOTOGRAPHY DATED 10-18-2016

TOPOGRAPHIC SURVEY PROVIDED BY

WATERS CARDENAS LAND SURVEYING, LLP 5553 HOLLISTER AVENUE, SUITES 7 & 8 GOLETA, CALIFORNIA 93117 TEL: (805) 967-4416 DATED: JUNE 2019

SURVEY NOTES:

- 1 HORIZONTAL BASIS OF COORDINATES IS NAD83 (1991.35 EPOCH) PER STATION 0005 PER RECORD OF SURVEY BOOK 147, PAGES 70-74.
- VERTICAL DATUM IS NAVD88 PER STATION 0005 PER RECORD OF SURVEY BOOK 147, PAGES 70-74. ELEVATION = 595.86' FEET.

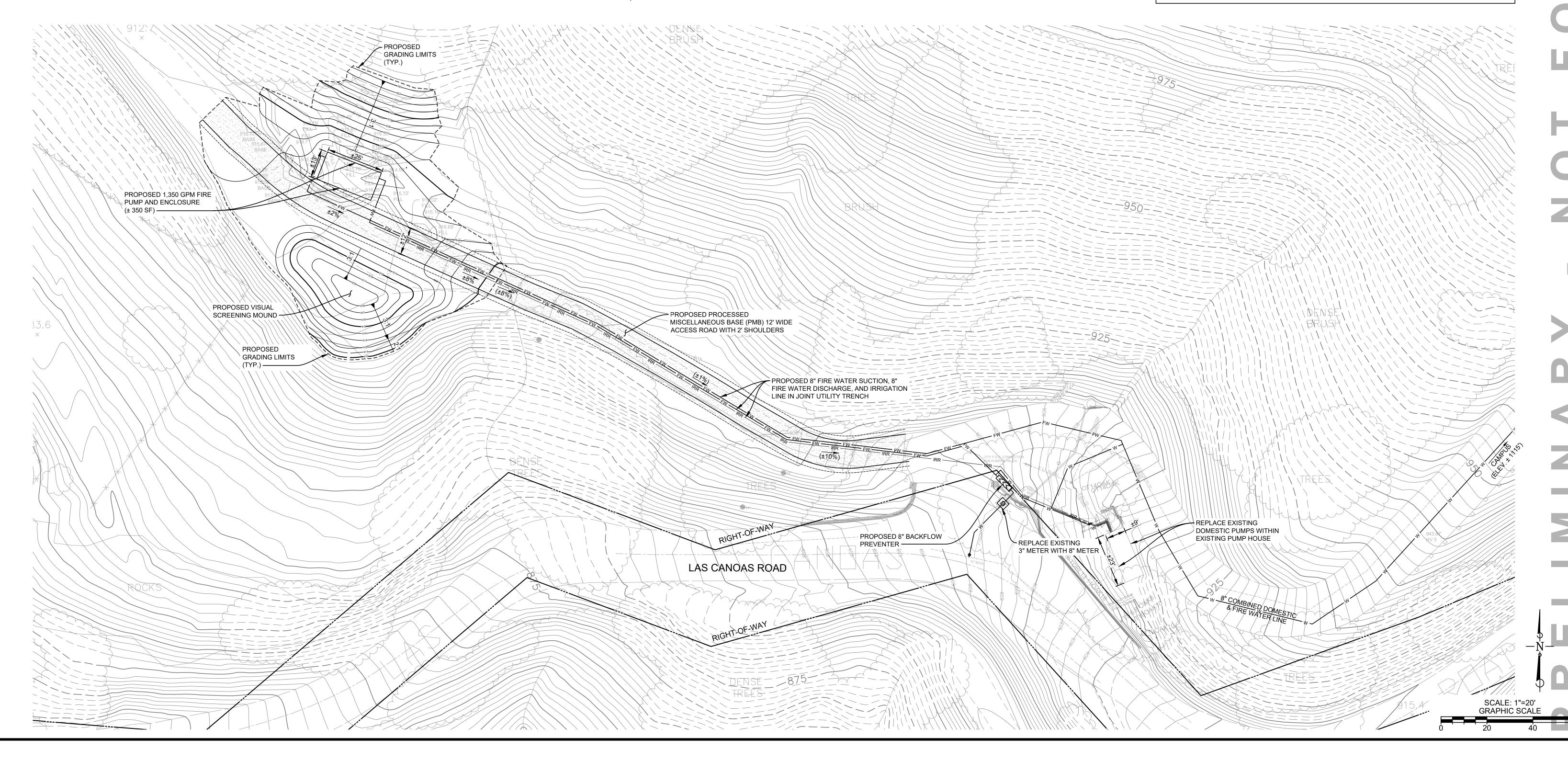
LEGEND:			
CENTERLINE —		SLOPE LINE	
EDGE OF A.C. PAVEMENT	- 00	FENCE	
ELEVATION	100.00	RETAINING WALL	
CONCRETE PAVEMENT		WATER	W
A.C. PAVEMENT		SEWER	s
PROPERTY LINE		STORM DRAIN	SD
RIGHT-OF-WAY LINE —		POWER	——— E ———
EASEMENT LINE —-		GAS	G
CONTOURS (MAJOR) —	10	TELEPHONE	—— T ——
CONTOURS (MINOR)	12	CABLE TV	CTV
BENCH MARK		MANHOLE	OMH
TREE CANODY		CLEANOUT	o
TREE CANOPY		WATER METER & LATERA	L — w — — — WM
APPROX. SAW CUT LINE —	_	FIRE HYDRANT	-⊗
LIMIT OF GRADING LINE	00	THRUST BLOCK	
GRADE BREAK LINE FLOW LINE	GB	FITTING	-3-%
-		STREET LIGHT	ф [`]

PRELIMINARY ESTIMATED EARTHWORK QUANTITIES:

RAW CUT: 315 CUBIC YARDS NOTE:

RAW FILL: 290 CUBIC YARDS BE BALANCED ON SITE

NOTE: SHRINKAGE, CONSOLIDATION AND SUBSIDENCE FACTORS AND LOSSES DUE TO CLEARING AND DEMOLITION OPERATIONS ARE NOT INCLUDED. ESTIMATED RAW EARTHWORK QUANTITIES ARE BASED ON THE APPROXIMATE DIFFERENCE BETWEEN EXISTING GRADES AND PROPOSED FINISH GRADES AS INDICATED ON THE PLANS. STRUCTURAL SECTIONS FOR PAVING AND HARDSCAPE ARE NOT INCLUDED IN THESE ESTIMATES, AND FINAL EARTHWORK WILL VARY ACCORDING TO THESE FACTORS AND LOSSES.



Z I C H I T E C T S

802 EAST COTA STREET, SUITE A
SANTA BARBARA, CA 93103

CONSULTANTS

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SUZANNE ELLEDGE PLANNING & PERMITTING SERVICES
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TEL (805) 962-9055 STRUCTURAL ENGINEER GREER STRUCTURAL ENGINEERING

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FIRE PROTECTION ENGINEER

COLLINGS & ASSOCIATES, INC. 260 Maple Court, Suite 241 Ventura, CA 93001

TEL (805) 658-0003

ELECTRICAL ENGINEER

ALAN NOELLE ENGINEERING 1616 Anacapa Street Santa Barbara, CA 93101

ARCHITECT STAMP

CONSULTANT STAMP

ROFESSIONAL A. SCANGE

No. 71335

AGENCY APPROVAL

NO. DATE DESCRIPTION

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PROJECT OWNER & TITLE

IN PART AT ANY OTHER SITE

REVERE CAPITAL, LLC 2301 CEDAR SPRINGS RD, SUITE 200

DALLAS, TX 75201

SPECIFICATIONS IF THEY ARE USED IN WHOLE OR

WATER UTILITIES IMPROVEMENTS

1964 LAS CANOAS ROAD SANTA BARBARA, CA 93105

HEET TITLE

WATER SYSTEM IMPROVEMENT PLAN

DRAWN BY: KMS JOB NUMBER: 18045.04

C_101

E: AUGUST 31,2019



ARCHITECTS

802 EAST COTA STREET, SUITE A SANTA BARBARA, CA 93103

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REVERE CAPITAL, LLC
2301 CEDAR SPRINGS ROAD
SUITE 200

MATER UTILITIES

1964 LAS CANOAS ROAD
SANTA BARBARA, CA 93105

SANTA BARBARA, CA 93105

WATER SYSTEM IMPROVEMENT PLAN OVERVIEW

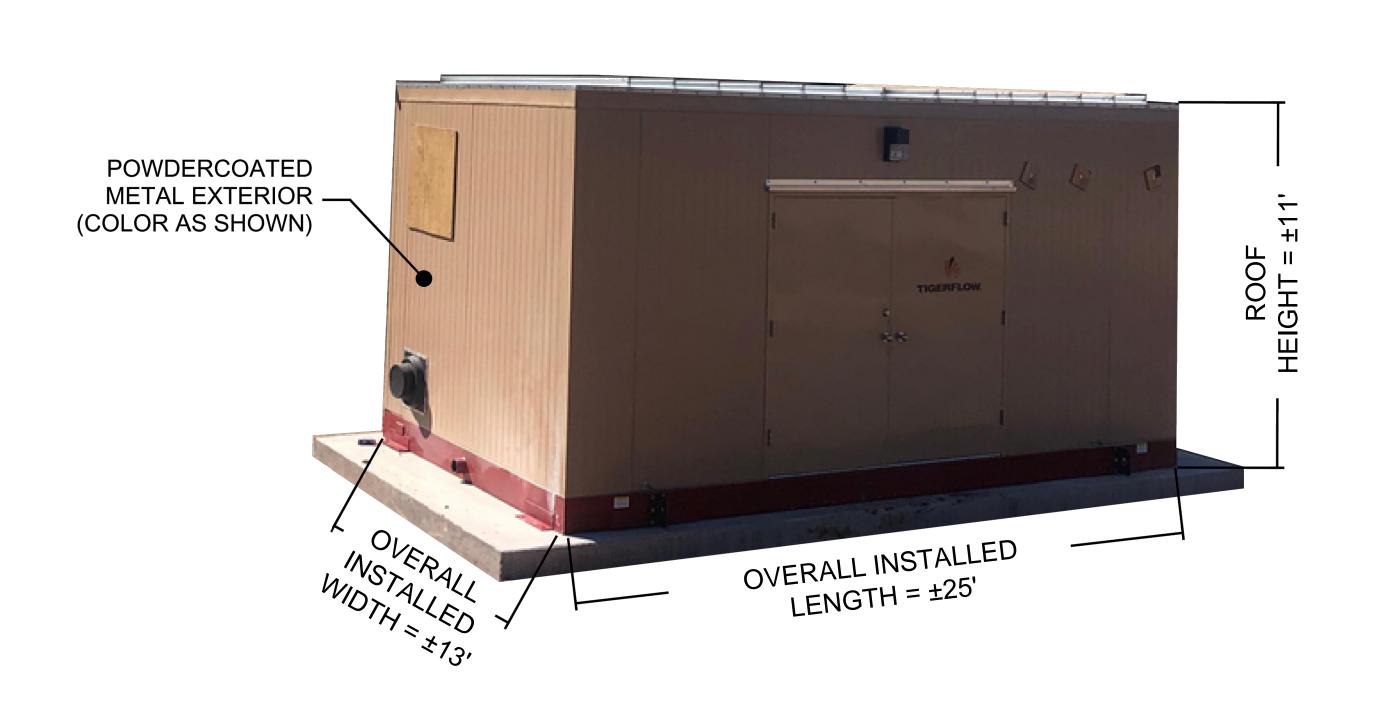
DRAWN BY: KMS

JOB NUMBER: 18045.04

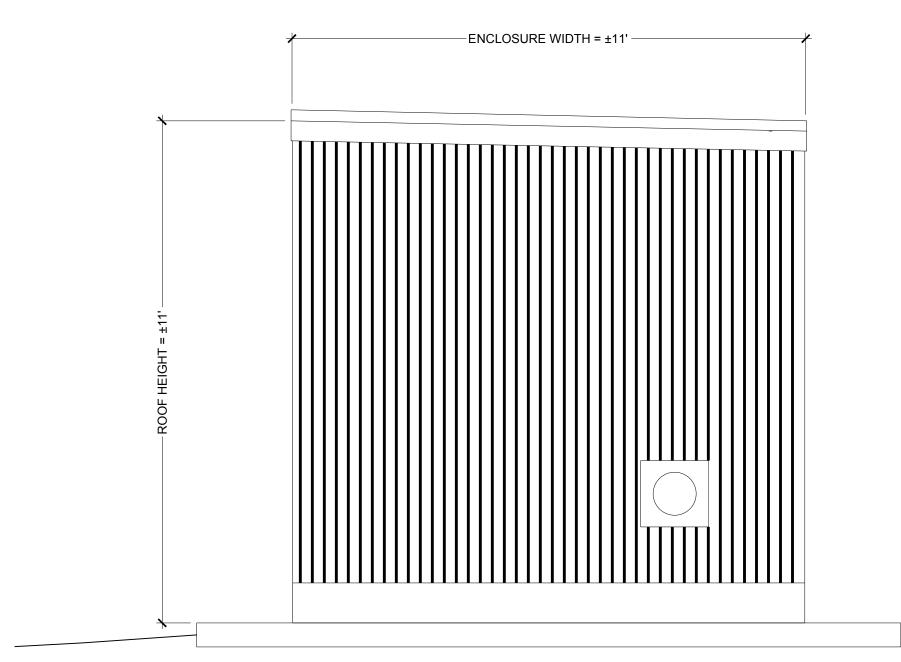
C-102

SCALE: 1"=80' GRAPHIC SCALE 80 160 240

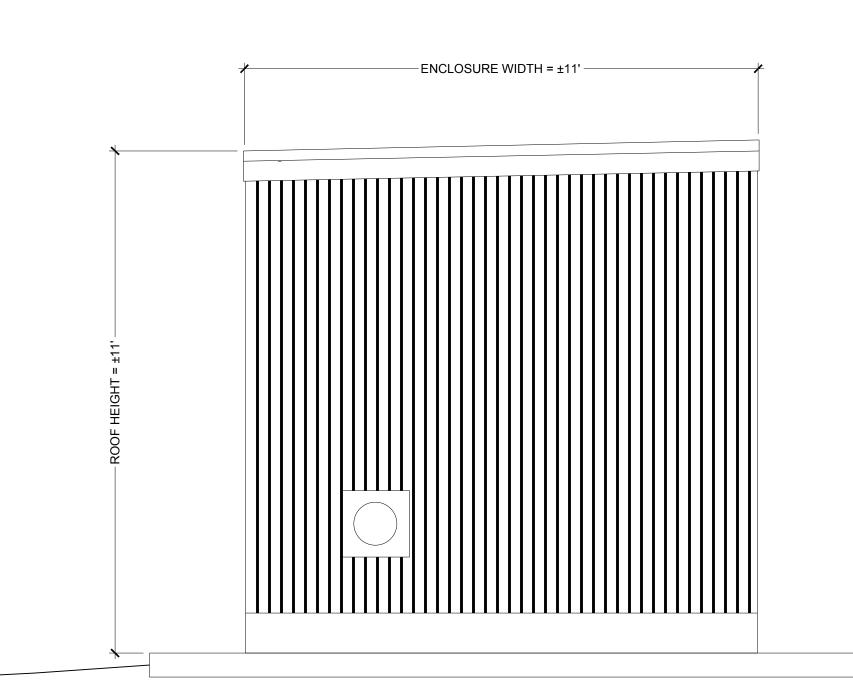
E: JANUARY 17, 2020



1 TYPICAL FIRE PUMP ENCLOSURE
NOT TO SCALE

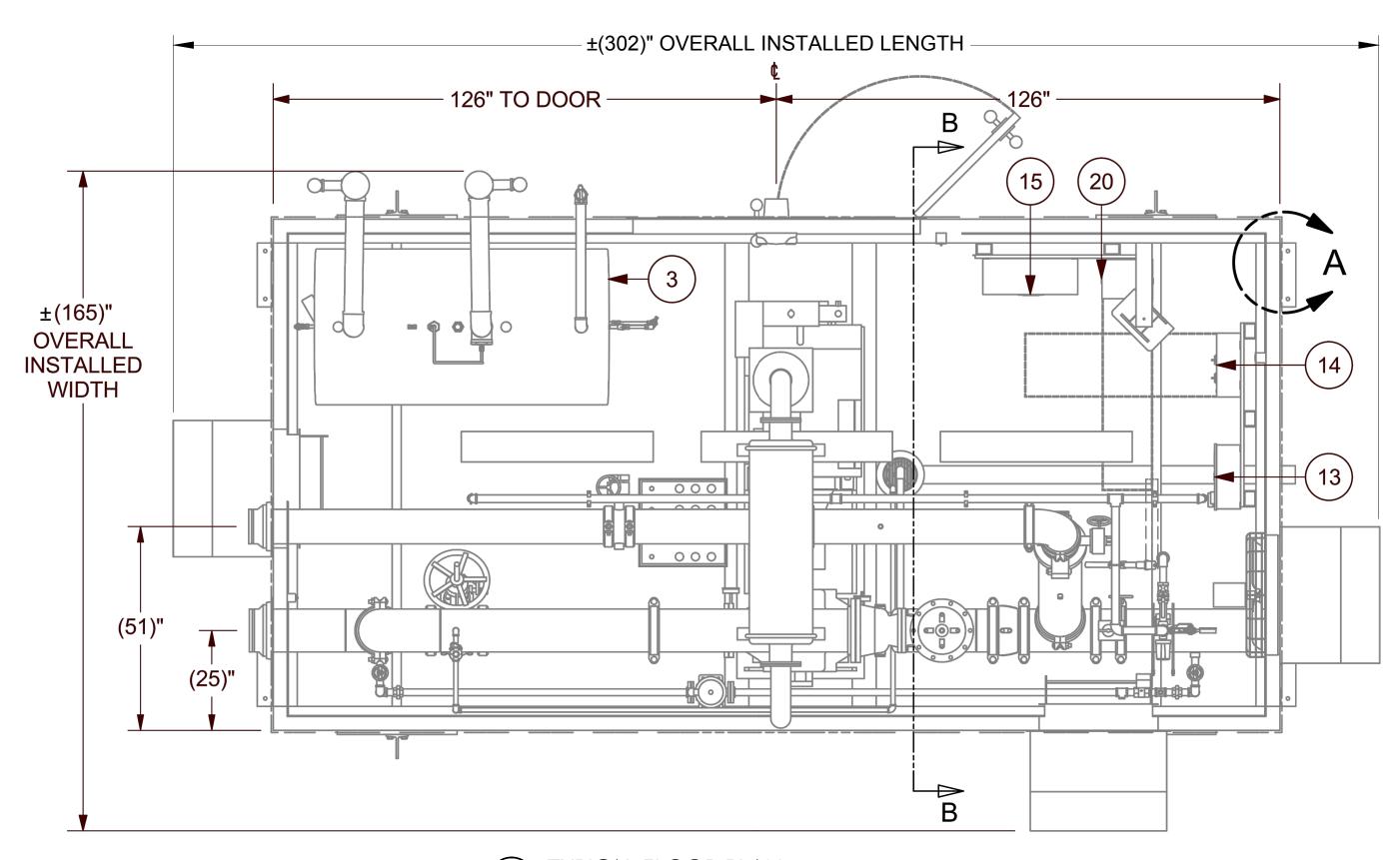


TYPICAL ENCLOSURE EXTERIOR ELEVATION - EAST



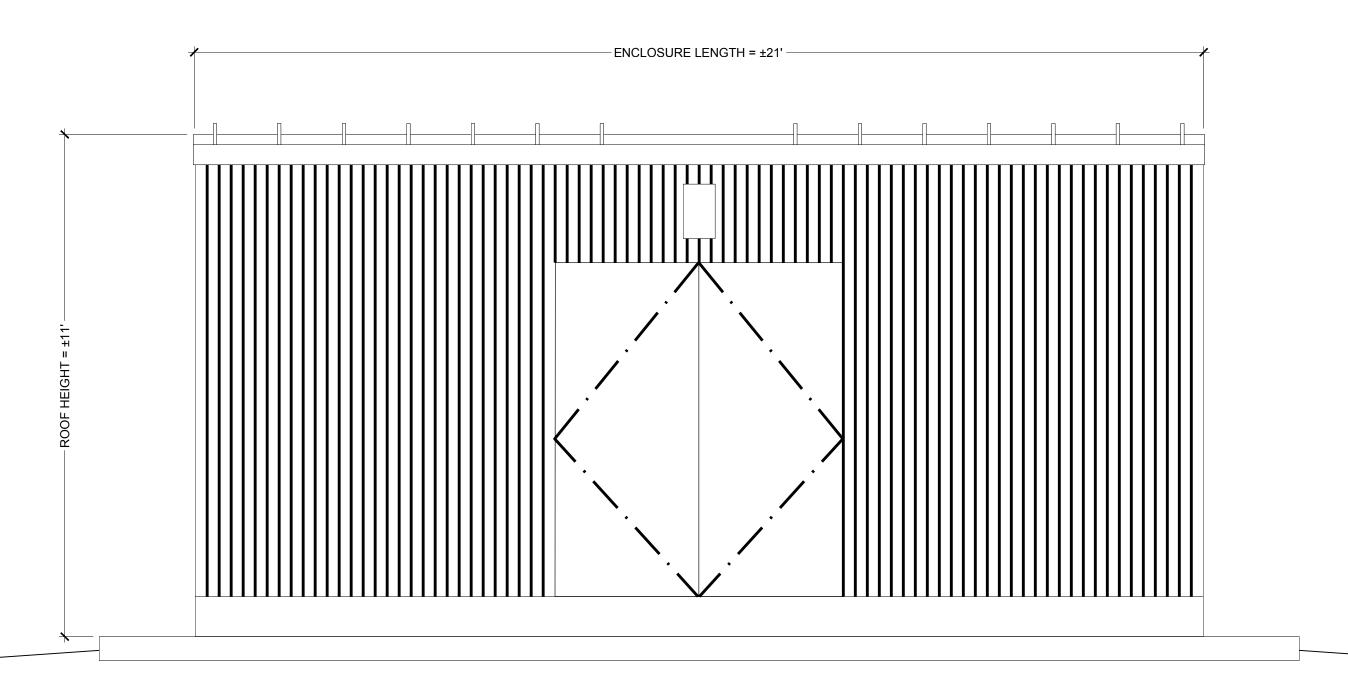
TYPICAL ENCLOSURE EXTERIOR ELEVATION - WEST

1/2" = 1'-0"



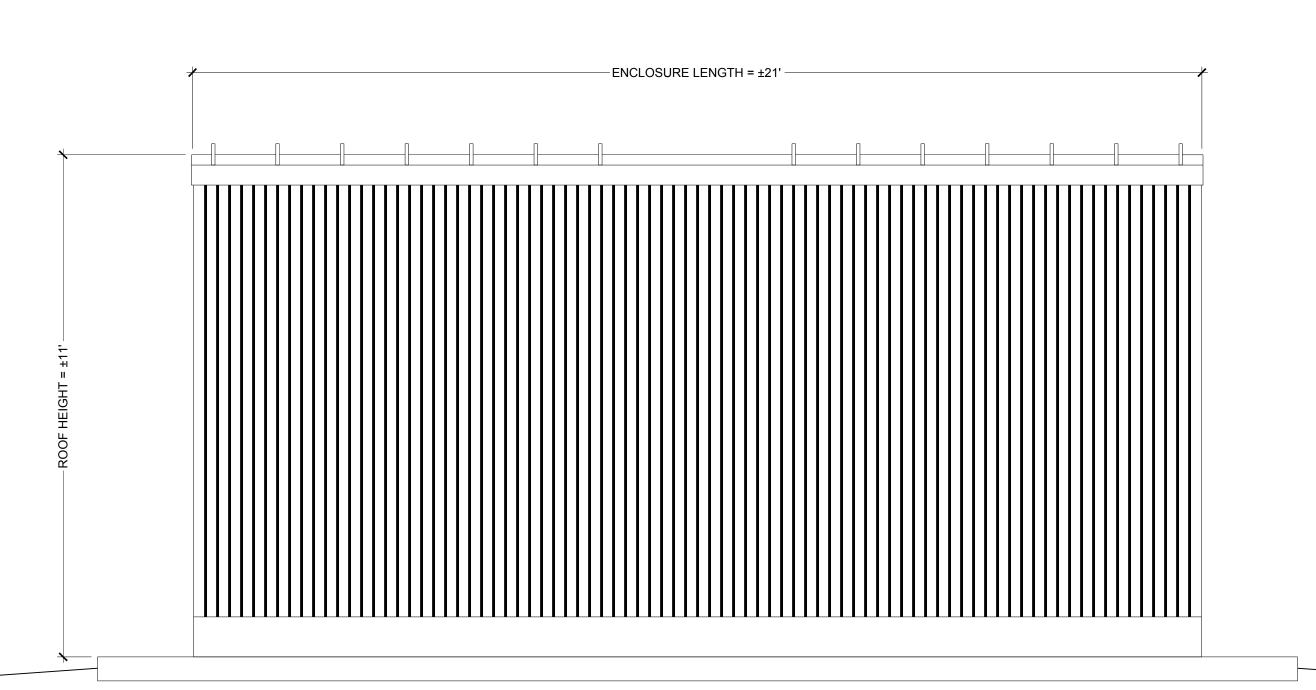
2 TYPICAL FLOOR PLAN

1/2" = 1'-0"



4 TYPICAL ENCLOSURE EXTERIOR ELEVATION - SOUTH

1/2" = 1'-0"



6 TYPICAL ENCLOSURE EXTERIOR ELEVATION - NORTH

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2301 CEDAR SPRINGS RD, SUITE 200
DALLAS, TX 75201

WATER UTILITIES IMPROVEMENTS

1964 LAS CANOAS ROAD SANTA BARBARA, CA 93105

TYPICAL FIRE PUMP ENCLOSURE

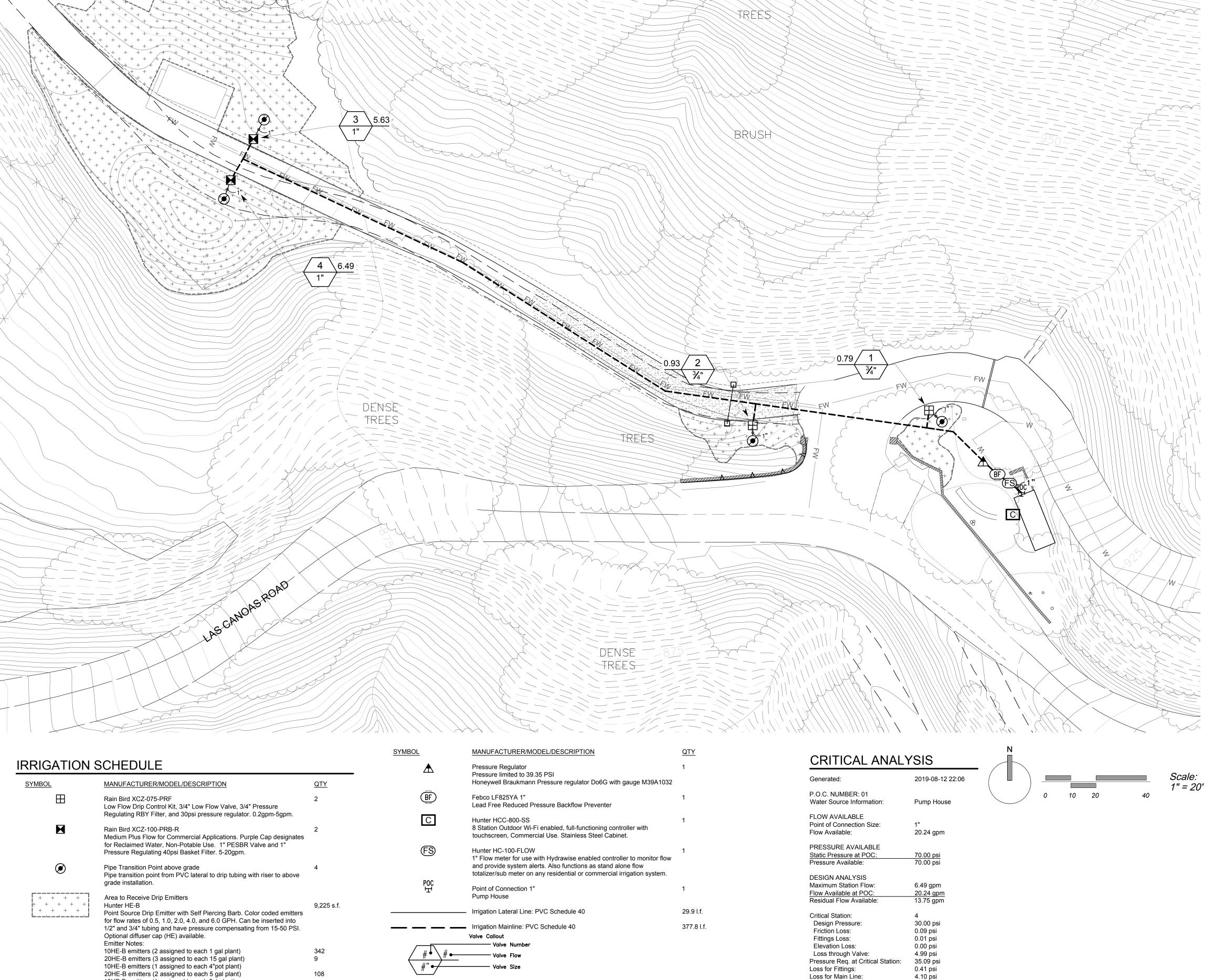
DRAWN BY: QP JOB NUMBER: 18045.04

DRAWN BY: QP
SHEET NO.

DATE: AUGUST 31, 2019

A-101

10HE-B emitters (1 assigned to each flat plant)



Loss for POC to Valve Elevation: 0.00 psi

Critical Station Pressure at POC: 50.57 psi

Pressure Available: 70.00 psi Residual Pressure Available: 19.43 psi

Loss for Backflow:

Irrigation Notes:

- 1. See irrigation legend for complete descriptions of all symbols shown on irrigation plan.
- 2. Point of connection is at the approximate location shown on plan.
- Install all valves in locking plastic valve boxes in groundcover area adjacent to pavement (2'-0" maximum) for ease of access. Identify locations and flag on site for Landscape Architect's approval BEFORE excavating for installation.
- 5. All irrigation emission devices shall meet the criteria as set forth in MWELO Section 492.7(a)(I)(M). Install irrigation system in accordance with manufacturer's specifications, irrigation details, and local codes.
- Install pressure regulating devices where necessary to ensure that the dynamic pressure at each emission device is withing manufacturer's recommended pressure range for optimal performance per MWELO Section 492.7(a)(1)(C).
- Indicated pipe locations are schematic. Do not place pipe under paving except where absolutely necessary. Coordinate pipe installation with other trades.
- 8. All piping installed under paving, through walls or footings must be placed inside Schedule 40 PVC sleeves of adequate size to allow free movement of the pipe in the sleeve. All pipe runs in sleeves must be straight, with no bends or angles. Sleeves for recycled-water irrigation lines shall be colored to match the pipe.
- 9. Locate irrigation controller at approximate location shown on plan. 110-v j-box by others. Obtain Landscape Architect's approval of location before installing.
- 10. Emitters shall be located on grade and staked a minimum of 6" (six inches) from the center of the plant, or at outer edge of rootball, whichever is greater.
- 11. Install flush end valves at the ends of all $\frac{5}{8}$ " polyethylene drip tubing in round valve boxes with gravel fill.
- 12. Install irrigation lines at the following minimum depths:

Schedule 40 and class 315 PVC mainline: 18" minimum cover

microtubing with plastic stake manufactured for that purpose.

Schedule 40 PVC lateral line: 12" minimum cover $\frac{5}{8}$ " polyethylene drip tubing: place on grade with stakes @ 6' O.C. $\frac{1}{4}$ " polyethylene micro-tubing: place on grade

**Install all rigid pipe as near to edges of planting areas, to avoid conflict with large plants.

13. Emitter layout:
1 gallon plant:
2- 1 GPH (Hunter 10HE-B) emitters per plant
5 gallon plant:
2- 2 GPH (Hunter 20HE-B) emitters per plant
15 gallon plant:
3- 2GPH (Hunter 20HE-B) emitters per plant
Punch emitter into polyethylene tubing. Attach microtubing to emitter. Attach bug cap to open
end of microtubing. Bring microtubing to edge of rootball. Stake end of

- 14. In the event of discrepancies in irrigation equipment count, quantities indicated by symbols on the plan prevail.
- 13. Include in the contract price a sufficient amount to allow for supply and installation of additional irrigation equipment to be used. Include 100 linear feet of lateral line and 100 linear feet of mainline. Provide the unit price for such irrigation equipment in the bid and credit the owner for each piece of equipment not installed.
- 14. In vicinity of existing trees, use discretion to route lateral lines and mainline as necessary to avoid root damage. Under canopies of existing trees, excavate using hand tools, and route pipe under roots with a minimum 4" clearance. Do not cut roots larger than 2" (two inches) in diameter, unless approved by the Landscape Architect.
- 15. Verify location of backflow preventer, master control valves, controller and point of connection with Landscape Architect prior to installation.
- 16. Install check valves at the low end of all irrigation lines to prevent low head drainage.
- 17. Landscape Contractor to coordinate with project plumber, and ensure all necessary stub-out locations for podium or raised planters are correct during construction.

Irrigation Pipe Sizing Guidelines:

Irrigation	Pipe Sizing C	Guidelines:	
Schedule 40 mainline up to 1-1/2"		Landscape Design for Water Conservation Compliance Statement	
0-4 gpm 5-8 gpm 9-12 gpm	1/2" 3/4" 1"	Mandatory Measures: (Show calculations of required areas on referenced sheets.)	Sheet #
13-22 gpm 23-30 gpm	1-1/4" 1-1/2"	No turf in parkways, medians or other areas with any dimension of < 8 feet	LP-1
Class 315 mair	nline 2" and up	No turf on >20% slope	LP-1
30-50 gpm 51-70 gpm 71-100 gpm	2" 2- 1/2" 3"	Residential, mixed-use & institutional projects, ≥80% of site's landscaped area in water wise plants; Commercial projects, 100% of landscaped area planted with water wise plants	LP-1
Schedule 40 la	teral line	Three inches of mulch, specified as required	LP-1 note
0-4 gpm 5-10 gpm 11-16 gpm 17-26 gpm	1/2" 3/4" 1" 1-1/4"	Areas of sprinkler coverage avoids overspray and runoff, including optimum distribution uniformity, head-to-head spacing and setbacks from walkways and pavement	LI-1
27-35 gpm 36-55 gpm 56-80 gpm	1-1/2" 2" 2-1/2"	Sprinklers have matched precipitation rates within each valve and circuit	LI-1
81-120 gpm 3" Weathermatic valves		Valves separated for individual hydrozones based on plant water needs and sun/shade requirements	LI-1
0-20 gpm 20-40 gpm 40-80 gpm	1" 1- ¹ / ₂ " 2"	Weather based irrigation controller with a rain shutoff sensor for the entire irrigation system if including an automatic irrigation system	LI-1
Rainbird XCZ o	Irip valves	Areas less than 8' wide irrigated only with bubblers, rotating nozzles on pop-up bodies, subsurface, or drip irrigation	LI-1
0-15 gpm 15-40 gpm	1" 1-½"	Drip/low volume irrigation system on >25% of landscaped area	LI-1
		Check valves (inline or integrated) located to prevent unwanted draining of irrigation lines	LI-1
		Pressure regulator(s) scheduled for mainline(s) if necessary, inline regulators at each valve	LI-1
		Grading encourages water retention and infiltration by preserving open space and creating depressed areas/swales	See Civil
		Grading mimics natural, pre-development hydrologic flow paths and maintains and/or increases the width of flow paths in order to decrease flow rates Calculations:	See Civil
		Drip irrigation is provided on greater than 80 percent of landscape at Total landscape area: 9,322 square feet Low water use 9,322 sf =100%	rea.
		I state that I am familiar with the Landscape Design Standards for W	

Conservation as most recently adopted by the Santa Barbara City Council and that

understanding that verification of compliance will be necessary upon final building

inspection. I shall inspect the completed installation and I will submit in writing that

Laurie Romano

Exp. Date August 30, 2021

the landscape design for this project complies with those standards. It is my

the installation substantially conforms to the approved plans.

In tomano

Signature

License # 2911



802 EAST COTA STREET, SUITE A SANTA BARBARA, CA 93103 TEL (805) 963-1955

CONSULTANTS

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TEL (805) 658-0003

TEL (805) 957-4632

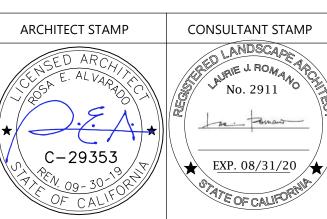
ELECTRICAL ENGINEER

ALAN NOELLE ENGINEERING

1616 Anacapa Street

Santa Barbara, CA 93101

TEL (805) 563-5444



AGENCY APPROVAL

REVISIONS

#

NO. DATE DESCRIPTION

THE ARCHITECT DOES NOT REPRESENT THAT
THESE PLANS OR THE SPECIFICATIONS ARE
SUITABLE FOR ANY SITE OTHER THAN THE ONE
FOR WHICH THEY WERE SPECIFICALLY
PREPARED. THE ARCHITECT DISCLAIMS
RESPONSIBILITY FOR THESE PLANS AND
SPECIFICATIONS IF THEY ARE USED IN WHOLE OR
IN PART AT ANY OTHER SITE

PROJECT OWNER & TITLE

REVERE CAPITAL, LLC

2301 CEDAR SPRINGS RD, SUITE 200 DALLAS, TX 75201

WATER UTILITIES IMPROVEMENTS

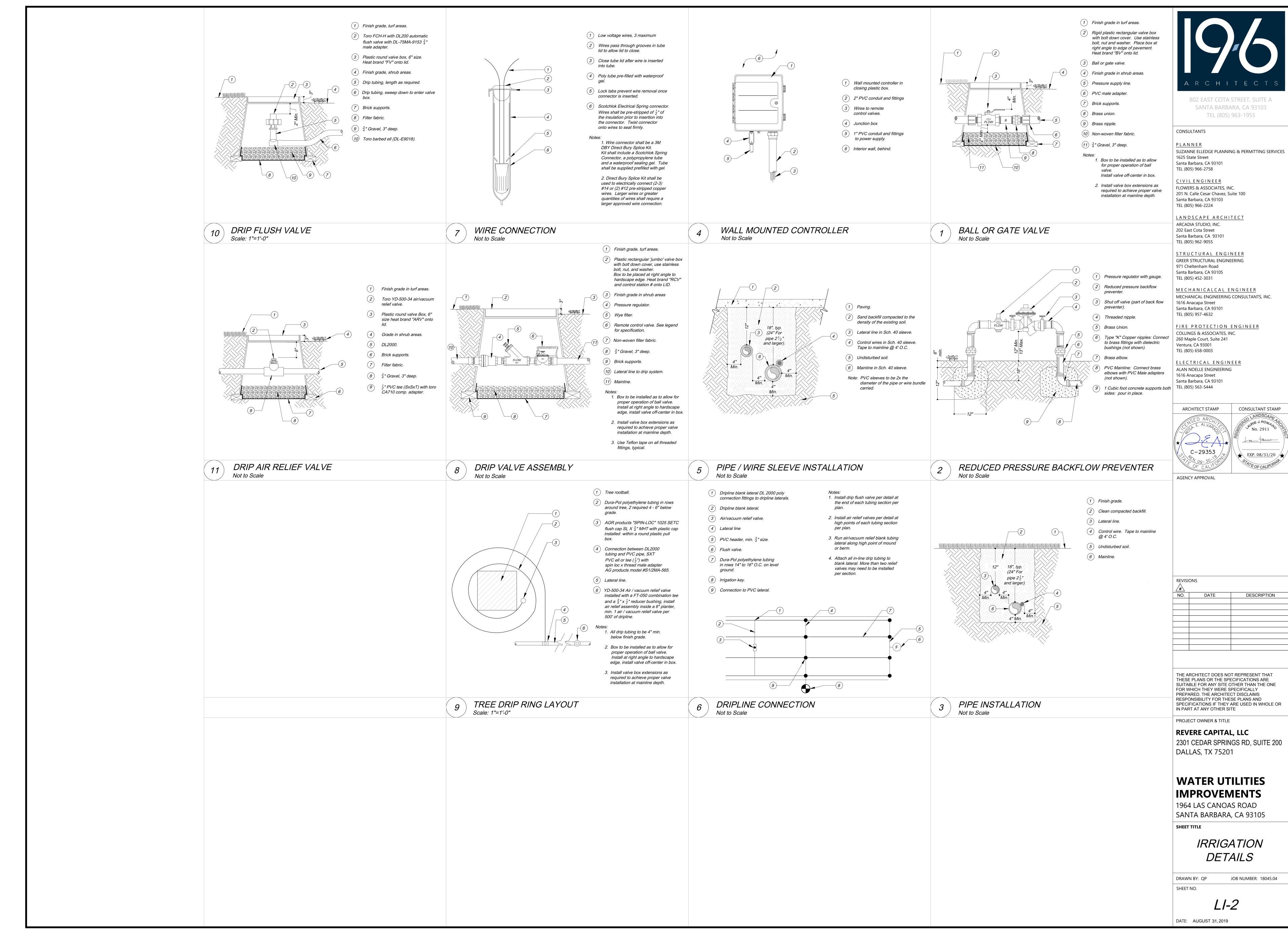
1964 LAS CANOAS ROAD SANTA BARBARA, CA 93105

SHEET TITLE

IRRIGATION PLAN

DRAWN BY: QP JOB NUMBER: 18045.04

L*I*-1



PLOT DATE: AUG 14, 2019 - 9:24PM DRAWING NAME: \\ARCADIA\PROJECTS\\2019 PROJECTS\\9.032 LAS CANOAS WATER\19.032 CADO!9.032 IN PROGRESS\LAS CANOAS WATER\SHEETS\CONSTRUCTION DRAWINGS\\RRIGATION PLAN'

Las Canoas Water

PART 1 - GENERAL

0.2 SUMMARY

Las Canoas Water

0.4 SUBMITTALS

SECTION 028100 - IRRIGATION

0.1 RELATED DOCUMENTS

apply to this Section.

This Section includes the following:

Pipe sleeves.

Related Sections include the following:

0.3 QUALITY ASSURANCE AND REQUIREMENTS

Explanation of Drawings:

planting and architectural features.

the site at the Contractor's expense.

REVISION NECESSARY.

Material List:

Drawings and general provisions of the Contract, including the Project Conditions of Approval, General and Supplementary Conditions and other Division 1 Specification Sections,

Valves, backflow preventer, and fittings.

Division 2 Section "Landscape Planting".

Division 2 Section "Landscape Maintenance".

Permits and Fees: Obtain and pay for required permits and inspections.

directions covering points not shown in the Drawings and Specifications.

provisions of these Specifications and Drawings shall take precedence.

whether or not specifically mentioned in the Specifications.

required by Division-1 "Product Substitutions" section.

on the basis of the information or samples submitted.

warrantee under the Contract Documents.

followed in all cases where the manufacturers of the articles used in this Contract furnish

regulations governing or relating to any portion of this Work are hereby incorporated into and

made a part of these Specifications, and their provisions shall be carried out by the Contractor.

Anything contained in these Specifications shall not be construed to conflict with any of the

above rules and regulations or requirements of the same. However, when these Specifications

and Drawings call for or describe materials, workmanship, or construction of a better quality,

higher standard, or larger size than is required by the above rules and regulations, the

Excavating and backfilling Irrigation System Work.

Definition: The words Landscape Architect as used herein shall refer to the Owner's

Manufacturer's Directions: Manufacturer's directions and detailed drawings shall be

Ordinances and Regulations: All local, municipal and state laws, rules and

028100 - 1

Due to the scale of the Drawings, it is not possible to indicate all offsets,

Furnish and install all Work called for on the Drawings by notes or details

Do not install the Irrigation System as shown on the Drawings when it is

Furnish the articles, equipment, materials, or processes specified in the

Submit complete materials list prior to performing Work. Include the

Equipment or materials installed or furnished which are not specified on

Approval of any item, alternate or substitute indicates only that the

Manufacturer's warranties shall not relieve the Contractor of its

fittings, sleeves, etc., which may be required. The Contractor shall carefully investigate

the structural and finished conditions affecting all of the Work and plan the Work

accordingly, furnishing such fittings, etc. as may be required to meet such conditions.

Drawings are generally diagrammatic and indicative of the Work to be installed. The

Work shall be installed in such a manner as to avoid conflicts between irrigation systems,

obvious in the field that obstructions, grade differences or discrepancies in area

dimensions exist that might not have been considered in design. Bring such

obstructions or differences to the attention of the Landscape Architect. In the event this

notification is not performed, the Contractor assumes FULL RESPONSIBILITY FOR ANY

Drawings and Specifications. No substitutions will be allowed without approval as

manufacturer, model number and description of all materials and equipment to be used.

the Drawings may be rejected with the Contractor required to remove such materials from

product or products apparently meet the requirements of the Drawings and Specification

Controller(s), control wire.

Automatic Irrigation System including piping, fittings, sprinkler heads and

Associated interior and exterior plumbing, and accessories to complete

Record Drawings Provide and keep up to date and complete a record set of prints which shall be corrected daily and show every change from the original Drawings and Specifications and the locations, sizes, and kinds of equipment. Prints for this purpose shall be kept on the site and shall be used only as a record set. These Drawings shall also serve as Work progress sheets and shall be the basis for measurement and payment for Work completed. Make neat and legible annotations thereon daily as the Work proceeds, showing the Work as actually installed. These Drawings shall be available at all times for inspection Before the date of the final inspection, transfer all information from the record prints to a reproducible plan, procured from the Landscape Architect. All Work shall be neat, legible and in ink. Dimension from two (2) permanent points of reference, building corners, sidewalk, or road intersections, etc., the location of the following items: Connection to existing water lines. 028100 - 2 Las Canoas Water Connection to existing electrical power. Gate valves. Routing of sprinkler pressure lines (dimension max. 100' along routing). Sprinkler control valves. Routing of control wiring. Quick coupling or garden valves. Other related equipment. On or before the date of the final inspection, deliver the corrected and completed reproducibles to the Landscape Architect. Delivery of the reproducibles will not relieve the Contractor of the responsibility of furnishing required information that may be omitted from the prints. Controller Charts: Landscape Architect must approve Drawings before controller charts are Provide two controller charts for each controller supplied. The chart shall show the area controlled by the automatic controller and shall be the maximum size that the controller door will allow. The chart is to be a reduced drawing of the actual system. However, in the event the controller sequence is not legible when the drawing is reduced, it shall be enlarged to a size that will be readable when The charts shall be a on stable (non-fading) paper, and a different color shall be used to indicate the area of coverage for each station. When completed and approved, laminate the charts between two pieces These charts shall be completed and approved prior to final inspection of the Irrigation System. Install the controller chart on the controller door. In the event that there are multiple controllers, include the other controller charts for reference at each controller Include a duplicate controller chart for each controller in the operation and maintenance manual. electric control, so that in case of repair, the bonnet may be brought to the surface Operation and Maintenance Manuals: without disconnecting the control wires. Lay the control wires loosely in trench without stress or stretching of control wire connectors. Prepare and deliver to the Landscape Architect within ten calendar days prior to completion of construction, two binders containing the following information: valves will not be allowed without prior approval of the Landscape Architect. Index sheet stating Contractor's address and telephone number, list of equipment with name and addresses of local manufacturers representative. Catalog and parts sheets on every material and equipment installed under this Contract. Guarantee statement.

Complete operating and maintenance instruction on all

One (set) of controller chart(s) that are duplicates of the

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In addition to the above-mentioned maintenance manuals, provide the

Owner's maintenance personnel with instructions for major equipment and show

major equipment.

charts installed on the controller door(s).

028100 - 4 Las Canoas Water Include following information: PROJECT: CONTRACTOR: ADDRESS: PHONE NUMBER: DATE OF ACCEPTANCE: PART 2 - PRODUCTS 0.1 MATERIALS General: Use only new materials of brands and types noted on Drawings, specified Copper: ASTM B88, Type L, hard-drawn copper tube and wrought solder type, paint per detail. PVC Pressure Main Line Pipe and Fittings: Pressure main line piping for sizes 2" and larger shall be Pacific Western (or approved equal) PVC Class 315 pipe. Pipe shall be made from an NSF approved Type I, Grade I PVC compound conforming to ASTM resin specification D1784. All pipes must meet requirements as set forth in Federal Specification PS-22-70, with an appropriate standard dimension (S.D.R.) (Solvent-weld pipe). Pressure main line piping for sizes 1-1/2" and smaller shall be Pacific Western (or approved equal) PVC Schedule 40 pipe. Pipe shall be made from NSF approved Type I, Grade I PVC compound conforming to ASTM resin specification 1785. All pipes must meet requirements as set forth in Federal Specification PS-21-70. PVC solvent-weld fittings shall be Schedule 40, 1-2, II-I NSF approved conforming to ASTM test procedure D2466. Solvent cement and primer for solvent-weld and fittings shall be of type and installation methods prescribed by the manufacturer. All PVC pipe must bear the following markings: Manufacturer's name Nominal pipe size Schedule or class Pressure rating in P.S.I. NSF (National Sanitation Foundation) approval Date of extrusion. All fittings shall bear the manufacturer's name or trademark, material designation, size, applicable I.P.S. schedule and NSF seal of approval PVC Non-Pressure Lateral Line Piping: Non-pressure buried lateral line piping shall be Pacific Western (or approved equal) PVC Class 200 pipe with solvent-weld joints. Pipe shall be made from NSF approved, Type I, Grade II PVC compound conforming to ASTM resin specification D1784. All pipes must meet requirements set 028100 - 5 Las Canoas Water forth in Federal Specification PS-22-70 with an appropriate standard dimension ratio. Except as noted in paragraphs 1 and 2 of Article 2.1B, all requirements for non-pressure lateral line pipe and fittings shall be the same as for solvent-weld pressure main line pipe and fittings as set forth in Article 2.01B of this Section. PVC Pipe Sleeves: All piping installed under paving, through walls or footings shall be placed inside Schedule 40 PVC pipe sleeves of adequate size to allow free movement of the pipe in the sleeve. Copper Pipe and Fittings: Type "L" copper pipe with wrought copper fittings. Ball Valves PVC Ball valves. Install per installation detail Quick coupling valves or garden valves: size and type as indicated on Drawings. Check Valves: Anti-drain valves shall be of heavy-duty virgin PVC construction with F.I.P. thread inlet and outlet. Internal parts shall be stainless steel and neoprene. Anti-drain valve shall be field adjustable against drawout from 5 to 40 feet of head. Anti-drain valve shall be similar to the Hunter "ADV" or approved equal. Make connections between the automatic controller(s) and the electric control valves with direct copper wire AWG-U.F. 600 volt. Common wires shall always be white in color. Install in accordance with valve manufacturer's specifications and wire chart. In no case shall wire size be less than #14. Provide permanent tag identifying valve number on each control wire within controller cabinet. Wiring shall occupy the same trench and shall be installed along the same route as pressure supply or lateral lines wherever possible. Where more than one (1) wire is placed in a trench, tape the wiring

Provide an expansion curl within three (3) feet of each wire connection.

Make all splices with 3M DBY Direct burial splice kit or approved equal.

Final location of automatic controller shall be approved by Owner

the automatic controller location shall be furnished by others. The final electrical

Automatic controller shall be per Drawings.

All electric control valves shall be per Drawings

hook-up shall be the responsibility of the irrigation installer.

Automatic Controller:

Electrical Control Valves:

Field splices between the automatic controller and electrical control

Unless otherwise noted on the Drawings, the 120-volt electrical power to

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Expansion curl shall be of sufficient length at splice connection at each

Las Canoas Water

0.6 GUARANTEE

following information:

0.7 GUARANTEE FOR IRRIGATION SYSTEM

Equipment to be Furnished:

0.5 PRODUCT DELIVERY, STORAGE AND HANDLING

evidence in writing to the Landscape Architect at the conclusion of the Project that this

Supply as a part of this Contract the following tools:

disassembling and adjusting each type of sprinkler and valve supplied on this

every five (5) or fraction thereof of each type of quick coupling valve installed.

conclusion of the Project. Evidence that the Owner has received material must be

Handling of PVC pipe and fittings: Exercise care in handling, and storing of PVC pipe

The guarantee for the irrigation system shall be made in accordance with the following

A copy of the guarantee form shall be included in the operations and maintenance

The guarantee form shall be re-typed onto the Contractor's letterhead and contain the

We hereby guarantee that the irrigation system we furnished and installed is free from

defects in materials and workmanship, and work has been completed in accordance with the

drawings and specifications, ordinary wear and tear and unusual abuse or neglect excepted.

We agree to repair or replace any defects in material or workmanship which may develop during

the period of one year from the date of acceptance and also to repair or replace any damage

resulting from the repairing or replacing of such defects at no additional cost to the Owner. We

shall make such repairs or replacements within a reasonable time, as determined by the Owner,

after receipt of written notification. In the event of our failure to make such repairs or

replacement within a reasonable time after receipt of written notice from the Owner, we

authorize the Owner to proceed to have said repairs or replacements made at our expense and

and fittings. Transport all PVC so as not to subject it to undue bending or concentrated

external load at any point. Any section of pipe that has been dented or damaged will be

form. The General conditions and Supplementary conditions of these specifications shall be

filed with Owner or his representative prior to acceptance of the irrigation system.

shown to the Landscape Architect before final project review.

discarded and, if installed, shall be replaced with new piping.

we will pay the costs and charges therefore upon demand.

Two (2) keys for each automatic controller.

Turn over the above-mentioned equipment to the Owner at the

Two (2) sets of special tools required for removing,

One (1) quick coupler key and matching hose swivel for

Two (2) five foot valve keys for operation of gate valves.

Las Canoas Water All electric control valves shall have a manual flow adjustment. Provide and install one control valve box for each electric control valve. Control Valve Boxes: Heavy duty rectangular box, Carson, Ametek, Roby, with lockable lid. Install as detailed. Burn the valve number on the lid of the valve box with a branding iron manufactured for that purpose. Install a plastic pre-printed valve tag with a number corresponding to the valve number on each valve. Use 10" x 10-1/4" round box for all gate valves. Extension sleeve, where required, shall match box. Use 12" x 17" measured top rectangular box for all remote control valves. Extension sleeve, where required, shall match box Use 15" x 21" measured top jumbo rectangular box for all remote control drip assembly valves. Extension sleeve, where required, shall match box Sprinkler Heads: All sprinkler heads shall be of the same size, type, and deliver the same rate of precipitation with the diameter (or radius) of throw, pressure, and discharge as shown on the Drawings or as specified. Spray heads shall have a screw adjustment. Riser units shall be fabricated in accordance with the details as shown on the Drawings. Riser nipples for all sprinkler heads shall be the same size as the riser opening in the sprinkler opening. All sprinkler heads shall be as specified. Drip Irrigation Equipment: Drip Emitters: type as indicated on Drawings. Pressure Regulator: type as indicated on Drawings. Y-Filter: Ag Products or approved equal. Stainless steel wire staples to secure polyethylene tubing and plastic tubing stakes as necessary to locate emitters. Polyethylene Tubing and Micro-Tubing: Rain Bird Xeri-Tube 700 1/2 ", Polyethylene tubing or approved equal for spot emitter drip applications. Rain Bird XT-025 1/4" Distribution tubing or approved equal for spot emitter drip applications. Flush End Valve: size and type as indicated on Drawings or approved Rainfall Shut-off Device: size and type as indicated on Drawings as part of weather-sensing system. PART 3 - EXECUTION 028100 - 7 Las Canoas Water 0.1 INSPECTION Site Conditions: All scaled dimensions are approximate. The Contractor shall check and verify all size dimensions and report any discrepancies to the Landscape Architect prior to proceeding with Work in this Section. Exercise extreme care in excavating and Working near existing utilities. Contractor shall be responsible for damages to utilities that are caused by the Contractor's operations or neglect. Check existing utilities Drawings for existing utility Coordinate installation of irrigation materials including pipe, so they do not interfere with utilities or other construction or cause difficulty in planting trees, shrubs and groundcovers. Carefully check grades before starting Work on the Irrigation System. 0.2 PREPARATION Physical Layout: Prior to installation, stake out all pressure supply lines, routing and location of sprinkler heads. Pipe layout must be approved by Landscape Architect prior to

Las Canoas Water diameter. Wrap roots in heavy burlap to prevent scarring or excessive drying. Where a ditching machine is run close to trees having roots smaller than two (2) inches in diameter, hand trim the wall of the trench adjacent to the tree, making clean cuts through. Paint roots one (1) inch and larger in diameter with two (2) coats of tree paint. Close trenches adjacent to tree within twenty-four (24) hours, and where this is not possible, shade the side of the trench adjacent to the tree with burlap or canvas. Excavations within the driplines of existing Oak trees shall be performed under the supervision of the project Arborist. 0.6 FIELD QUALITY CONTROL Adjustment of the System: If it is determined that adjustments in the irrigation equipment will provide proper and more effective coverage, make adjustments prior to planting. Adjustments may also include changes in emitter sizes as required. Testing of Irrigation System: Request the presence of the Landscape Architect in writing at least forty-eight (48) hours in advance of testing. Test all pressure lines under hydrostatic pressure of 150 pounds per square inch and prove watertight. Testing of pressure mainlines shall occur prior to installation of electrical control valves. Water Supply Test all piping under paved areas under hydrostatic pressure of 150 pounds per square inch and prove watertight prior to paving. Connect the irrigation system to water supply point of connection Sustain pressure in lines for not less than two (2) hours. If leaks indicated. develop, replace joints and repeat test until entire system is proven watertight. Make connections at approximate locations shown. Contractor is Make all hydrostatic tests only in the presence of the Landscape responsible for minor changes caused by actual site conditions. Architect or other duly-authorized representative of the Owner. Do not backfill pipe until it has been duly inspected, tested, and approved. Electrical Supply: Furnish force pump and all other necessary test equipment. When the irrigation system is completed, perform a coverage test in the Make electrical connections for automatic controller to electrical points of presence of the Landscape Architect to determine if the water coverage for planting areas is complete and adequate. Furnish all materials and perform all Work required to Make connections at approximate locations as shown. Contractor is correct any inadequacies of coverage due to deviations from Drawings, or after bringing responsible for minor changes caused by actual site conditions. this to the attention of the Landscape Architect. This test shall be accomplished before Upon completion of each phase of Work, test and adjust the entire 0.3 INSTALLATION system to meet site requirements. 0.7 MAINTENANCE Dig trenches straight and support pipe continuously on bottom of trench. Lay pipe to an even grade. Trenching excavation shall follow layout indicated on The entire irrigation system, with the exception of drip tubing and emitters, must be Drawings and as noted. under full automatic operation prior to any planting. Provide for a minimum of eighteen (18) inches cover for all pressure Provide for a minimum of twelve (12) inches cover for all non-pressure 0.8 CLEAN-UP lines. Provide for a minimum of six (6) inches cover for all drip irrigation lines unless otherwise specified in the Drawing Details. 028100 - 8

Las Canoas Water Provide for a minimum of eighteen (18) inches cover for all control wiring.

Do not backfill trenches until all required tests are performed. Carefully backfill trenches with the excavated materials approved for backfilling, consisting of earth, loam, sandy clay, sand, or other approved materials, free from large clods of earth or stones. Mechanically compact backfill in landscaped areas to a dry density equal to adjacent undisturbed soil in planting area. Backfill will conform to adjacent grades without dips, sunken areas, humps or other surface irregularities. Place a fine granular material backfill to a depth of 6" immediately above all lines. No foreign matter larger than one-half (1/2) inch in size will be permitted in the initial backfill. Flooding of trenches will be permitted only with the approval of the

Landscape Architect. If settlement occurs and subsequent adjustments in pipe, valves, sprinkler heads, lawn or planting, or other construction are necessary, make all required adjustments without cost to the Owner.

Trenching and Backfill Under Paving:

Backfill trenches located under areas where paving, asphaltic concrete or concrete will be installed with sand (a layer six [6] inches below the pipe and three [3] inches above the pipe) and compact in layers to 95% compaction, using manual o mechanical tamping devices. Compact trenches for piping to equal the compaction of the existing adjacent undisturbed soil and leave in a firm unyielding grade. Set in place, cap and pressure test, all piping under paving prior to the paving Work. Piping under existing walks is generally done by jacking, boring or hydraulic driving, but where any cutting or breaking of sidewalks and/or concrete is necessary, it shall be done and replaced by the Contractor as a part of the Contract cost. Obtain permission to cut or break sidewalks and/or concrete from the Landscape Architect. No hydraulic driving will be permitted under concrete paving. Provide for a minimum cover of eighteen (18) inches between the top of the pipe and the bottom of the aggregate base for all pressure and on-pressure piping installed under asphaltic concrete paving.

Routing of irrigation lines as indicated on the Drawings is diagrammatic. Install lines (and various assemblies) in such a manner as to conform with the details. Install no multiple assemblies in plastic lines. Provide each assembly Install all assemblies specified herein in accordance with respective details. In absence of detail Drawings or Specifications pertaining to specific items required to complete the Work, perform such Work in accordance with best standard practice with prior approval of the Landscape Architect. Clean all PVC pipe and fittings before installation. Installation and

solvent welding methods shall be as recommended by the pipe and fitting manufacturer. On PVC to metal connections, work the metal connections first. Use teflon tape, or approved equal, on all threaded PVC, and on all threaded PVC to metal ioints. Where threaded PVC connections are required, use threaded PVC adapters into which the pipe may be welded.

> 028100 - 9 028100 - 12

END OF SECTION 028100

Las Canoas Water

to original conditions

0.10 OBSERVATION SCHEDULE

according to the time indicated:

0.9 FINAL OBSERVATION PRIOR TO ACCEPTANCE

complete satisfaction of the Landscape Architect.

Las Canoas Water

Line Clearance: All lines shall have a minimum clearance of six (6) inches from each

Automatic Controller: Install per manufacturer's instructions. Connect remote

120-volt stub-out to controller locations will be provided by electrical

All electrical Work must conform to local codes, ordinances and union

Install where shown on Drawings and details. When grouped together,

Burn valve number onto lid of valve box with branding iron manufactured

Install the sprinkler heads as designated. Sprinkler heads to be

Install drip emitters only after flushing of the system has been

Bring drip emitters to the soil surface with transfer tubing attached with a

barb fitting to buried polyethylene tubing. Surface mount and stake emitters with

transfer tubing stake. Install a bug cap at the end of each transfer tubing line. Locate

emitters equally spaced around the plant at the edge of the rootball or as shown in the

The Owner reserves the right to make temporary repairs as necessary to keep the

Where it is necessary to excavate adjacent to existing trees and shrubs, use all

028100 - 10

028100 - 11

Clean-up as each portion of Work progresses. Remove refuse and excess dirt from

Operate each system in its entirety for the Landscape Architect at time of final

Show evidence to the Landscape Architect that the Owner has received all

Notify the Landscape Architect in advance for the following observation meetings,

Pressure supply line installation and testing: 48 hours

When observations have been conducted by other than the Landscape Architect,

No site observations will commence without record drawings. In the event that the

Contractor calls for a site visit without record drawings, without completing previously noted

reimbursing the Owner for the Landscape Architect's time for the site visit at his current billing

rates per hour portal to portal (plus transportation costs) for inconvenience. No further site

corrections, or without preparing the system for said visit, he shall be responsible for

Automatic controller installation: 48 hours

Lateral line and emitter installation: 48 hours

observation. Rework any items deemed not acceptable by the Landscape Architect to the

accessories, charts, record drawings, and equipment as required before final observation can

Pre-Job conference: 7 days

Coverage test: 48 hours

Final inspection: 7 days.

visits will be scheduled until this charge has been paid and received.

Control wire installation: 48 hours

show evidence in writing of when and by whom these observations were made.

the site, sweep all walks and paving clean, and repair any damage done to the Work of others

irrigation system equipment in operating condition. The exercise of this right by the Owner

possible care to avoid injury to trees, tree roots and shrubs. Excavate by hand only in areas

where two (2) inch and larger roots occur. Tunnel under all roots two (2) inches and larger in

shall not relieve the Contractor of responsibility under the Contract Documents.

Do not exceed the maximum spacing of heads indicated. In no case

Provide the 120-volt power connection to the automatic controller.

allow at least twelve (12) inches between valves. Install each remote control valve in a

separate valve box. Label each controller and station number at the valve with a 2-1/4"

x 2-3/4" polyurethane I.D. tag attached to the control wire of the valve.

installed in this Work shall be equivalent in all respects to those specified.

shall the spacing exceed the maximum recommended by the manufacturer.

accomplished to the satisfaction of the Landscape Architect

other and from lines of other trades. Parallel lines shall not be installed directly over one

control valves to controller in numerical sequence as shown on the Drawings.

Line Voltage Wiring for Automatic Controller:

authorities having jurisdiction.

Remote Control Valves:

for the purpose.

Sprinkler Heads

Drip Emitters:

detail Drawings.

0.4 TEMPORARY REPAIRS

0.5 EXISTING TREES AND SHRUBS

802 EAST COTA STREET, SUITE A SANTA BARBARA, CA 93103 TEL (805) 963-1955

CONSULTANTS

PLANNER SUZANNE ELLEDGE PLANNING & PERMITTING SERVICES 1625 State Street Santa Barbara, CA 93101 TEL (805) 966-2758

CIVIL ENGINEER FLOWERS & ASSOCIATES, INC. 201 N. Calle Cesar Chavez, Suite 100 Santa Barbara, CA 93103 TEL (805) 966-2224

LANDSCAPE ARCHITECT ARCADIA STUDIO, INC. 202 East Cota Street Santa Barbara, CA 93101 TEL (805) 962-9055

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> ARCHITECT STAMP CONSULTANT STAMP No. 2911 De Smant C-29353 EXP. 08/31/20 ATE OF CALIFOR

AGENCY APPROVAL

REVISIONS DESCRIPTION

THE ARCHITECT DOES NOT REPRESENT THAT THESE PLANS OR THE SPECIFICATIONS ARE SUITABLE FOR ANY SITE OTHER THAN THE ONE FOR WHICH THEY WERE SPECIFICALLY PREPARED. THE ARCHITECT DISCLAIMS RESPONSIBILITY FOR THESE PLANS AND SPECIFICATIONS IF THEY ARE USED IN WHOLE OR IN PART AT ANY OTHER SITE

PROJECT OWNER & TITLE

REVERE CAPITAL, LLC 2301 CEDAR SPRINGS RD, SUITE 200 DALLAS, TX 75201

WATER UTILITIES IMPROVEMENTS

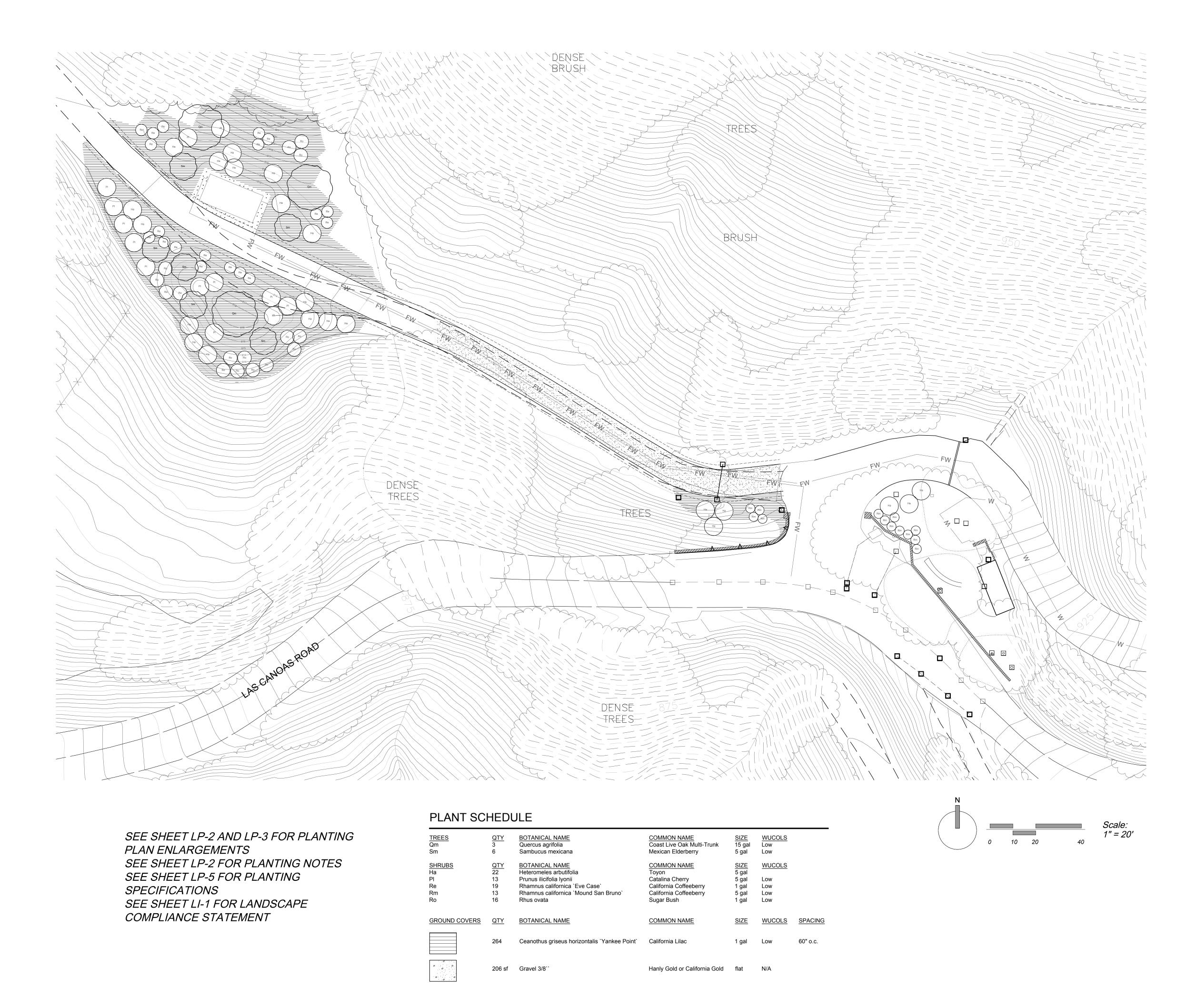
1964 LAS CANOAS ROAD SANTA BARBARA, CA 93105

SHEET TITLE

IRRIGATION **SPECIFICATIONS**

DRAWN BY: QP JOB NUMBER: 18045.04 SHEET NO.





ARCHITECTS

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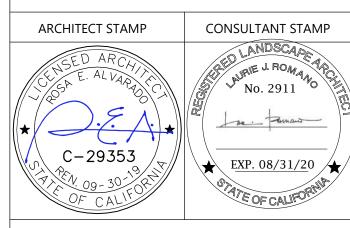
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SHEET TITLE

PLANTING PLAN

DRAWN BY: QP JOB NUMBER: 18045.04

LP-1



Planting Notes:

by plant symbols on the plan prevail.

financial responsibility for any damage to plants.

permission of the Landscape Architect.

manufacturer's specification.

any plant sourcing difficulty.

Landscape Architect prior to planting.

14. Install all plants per details.

prior to work.

prior to installation.

waive requirement.

20. Plant backfill: See Specifications

approval prior to purchase and delivery.

replaced at the Contractor's expense.

206 sf Gravel 3/8``

Hanly Gold or California Gold flat N/A

23. Preserve and protect all existing trees unless otherwise noted.

adjacent grade or plants smaller than 15 gallon.

1. All plants are identified by typical symbols. Plant quantities are approximate and provided for the contractor's convenience. In the event of discrepancies in plant count, quantities indicated

2. At completion of rough grading, take representative soil samples (minimum of two per acre)

from the project site and source of any imported topsoil. Locations and number of soil

of fertilizer & amendments as recommended to provide a suitable medium for planting.

Follow all recommendations in agronomic soil report, including leaching if recommended.

Notify the Landscape Architect of any potential problems which may result due to harmful

3. Specification Section 032 93 00, Landscape Planting, is integral to the intent of the planting

4. Contractor is responsible for finish grades and for fine grading required for surface drainage

and uniformity to the satisfaction of the Landscape Architect. Advise Landscape Architect of drainage problems and make recommendations for solution. Final grades to within a tenth of

plan. Do not bid planting plan without reference to applicable specification section.

Grades and flow lines must be maintained during irrigation and planting operations.

Contractor may not alter established grade and flow lines without the knowledge and

6. Install North American Green SC150BN Erosion Control Fabric (Pacific Soil Stabilization

7. The Landscape Architect reserves the right to review all plant material at the nursery prior to delivery to job site. In lieu of nursery review the Landscape Architect may request photos

8. Landscape Architect reserves the right to refuse plants delivered to site that are substandard. Replacement plants are to be supplied by contractor at no additional cost to owner.

9. Plant materials and installation to meet highest quality industry standard. Locate and secure all specified plants within two weeks of award of contract and show proof of to Landscape

10. Guaranty plant material 5 gallon or smaller except transplants for a period of 90 days from

11. Notify Landscape Architect of intended planting schedule a minimum of two weeks prior to

12. Set out all plant materials as shown on plan. Final locations must be approved by the

13. Plant crown to be 2" above adjacent grade for 15 gallon and larger plants; 1" above

15. Stake trees according to industry standards per details. Review with Landscape Architect

16. Contact Landscape Architect for decision regarding proposed plant substitutions 4 weeks

18. Any tree shown on plan to be installed in less than 8' (eight feet) clear distance from any curb, walkway, foundation, domestic water line, fire line, storm drain, or sewer line, or any underground utility is to be installed with root control barriers UB 24-2 by Deep Root Corp: 800-458-7668. Install a minimum of 16 linear feet of root barrier centered on the tree adjacent to any underground utility. Install as directed by detail. Install per manufacturer's instructions. Palm trees do not require root control barriers. Landscape Architect may alter or

19. Plant groundcovers adjacent to shrubs and/ or trees 1.5 times the distance of their specified spacing away from the stems of the adjacent shrubs and trees. Groundcovers adjacent to

curbs and pavement shall be spaced at specified spacing away from paved areas.

21. Completely eradicate all bermuda, kikuyu grass, and other weed growth or other visible or alleged invasive weeds from areas within project limits prior to installing planting.

Spread mulch evenly over all shrub and groundcover areas to a depth of 3" (three inches). Keep mulch away from plant stems. Submit mulch samples to Landscape Architect for

24. Any tree or plant containing pathogens, bacteria or viruses harmful to plant health shall be

25. In areas with significant gopher populations that can not be controlled through traps or other conventional methods, all plant material is to be placed in an appropriately sized gopher

basket. Contractor to include cost of baskets and wire in all bids and planting estimates.

22. Provide and install bark mulch over all shrub and groundcover areas. Use walk-on bark mulch. Walk on Bark mulch shall be a virgin forest product consisting of shredded fir bark and bark nuggets. Source from Agromin (800) 247-6646 or as listed in the specifications.

date of final review. Replace dead plants and plants not in vigorous condition, without cost to owner, as determined by Landscape Architect at the end of warranty period. Guaranty 15

Architect in writing that plants have been secured. Notify Landscape Architect immediately of

Santa Maria, CA 93454 PH (800) 473-1965) on all slopes of 5:1 or steeper, per

a foot must be established prior to commencing planting operations.

and/or specifications of plant material to be provided prior to delivery.

gallon plants and larger, for 1 year from date of final review.

17. All plants delivered to the site must have legible identification tags.

substances found in the soil. Failure to act as specified may result in contractor assuming

samples must be approved by the Landscape Architect. Send soil samples to Wallace Soil

Testing Laboratory 310-615-0116 or an approved equal for testing of suitability for ornamental planting as specified on the drawings. Submit a copy of the results of this analysis to the Landscape Architect for approval and comment. Make adjustments to the rate and analysis

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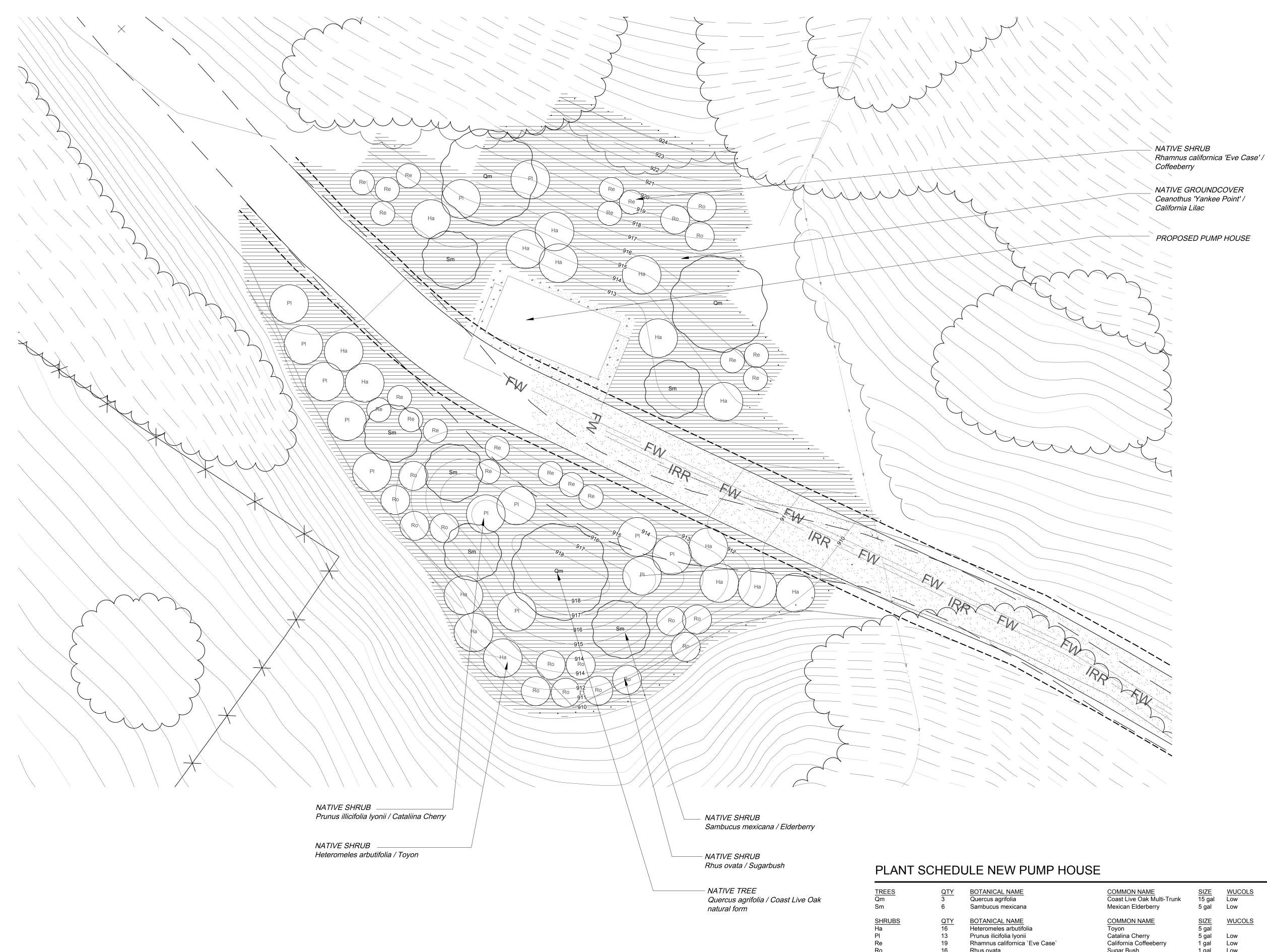
WATER UTILITIES IMPROVEMENTS

1964 LAS CANOAS ROAD SANTA BARBARA, CA 93105

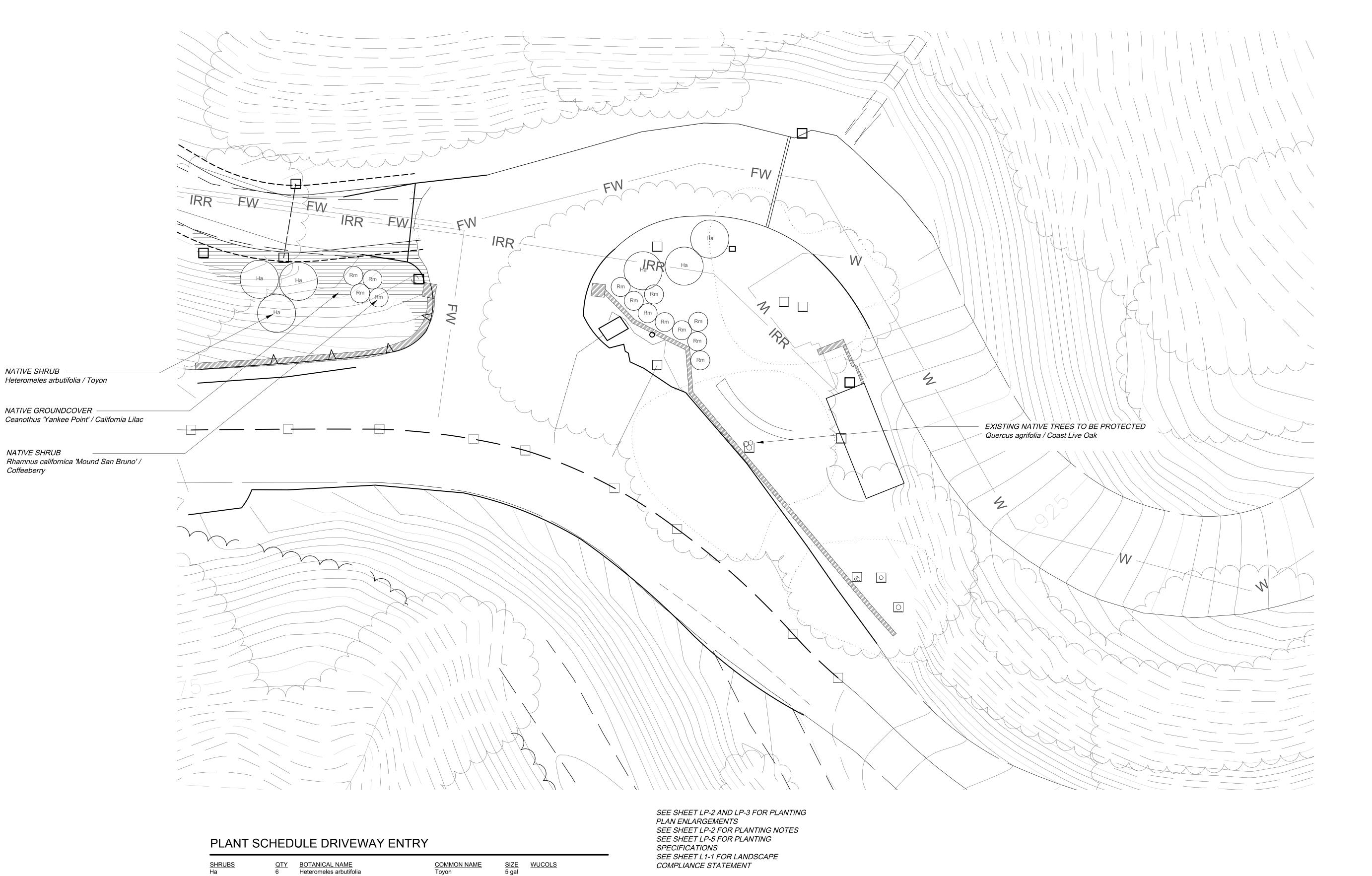
PLANTING **ENLARGEMENT** WEST

JOB NUMBER: 18045.04 DRAWN BY: QP

LP-2







Rhamnus californica 'Mound San Bruno'

14 Ceanothus griseus horizontalis 'Yankee Point' California Lilac

SIZE WUCOLS SPACING

GROUND COVERS QTY BOTANICAL NAME

N Scale ARCHITECTS

802 EAST COTA STREET, SUITE A SANTA BARBARA, CA 93103 TEL (805) 963-1955

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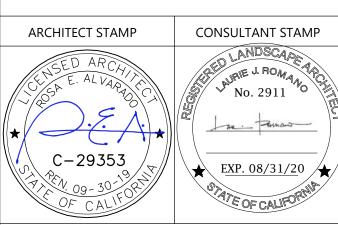
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SHEET TITLE

PLANTING ENLARGEMENT EAST

DRAWN BY: QP JOB NUMBER: 18045.04

LP-3

PLOT DATE: ALIGH, 2019 - 9.25PM DRAWING NAME: \\ARCADIA\\PROBERS\2019 PROBERS\19 032 | AS CANDAS WATER\19 032 | AS CANDAS WATER\2019 033 | AS CANDAS WATER\2

Las Canoas Water

Las Canoas Water

M. Water: Furnished by Owner; transport as required

manufacturer's specifications.

Landscape Planting

N. Mulch: Shredded bark, 0-1" ('Walk-On-Bark') sources per plan.

O. Deep Root Barrier: As manufactured by Deep Root Corp. (800-458-7668). Install per

029000 - 6

not exceed 3.0 millimhos per centimeter at 25 degrees centigrade. The boron content shall be

no greater than 1 part per million as measured on the saturation extract. In order to insure

conformance, samples of the imported soil shall be submitted to an approved laboratory for

029000 - 3

analysis prior to, and following, backfilling.

G. Plant Material

Landscape Planting

1. In accordance with the California State Department of Agriculture's regulation for nursery

SECTION 029000 - LANDSCAPE PLANTING inspections, rules and rating. All plants shall have a normal habit of growth and shall be Pick up all trash resulting from this work no less frequently than each Friday before leaving the sound, healthy, vigorous and free of insect infestations, plant diseases, sunscalds, fresh site, once a week, and/or the last working day of each week. Remove all trash from the site. A. All materials used must either conform to Landscape Planting Specifications in other sections or abrasions of the bark, excessive abrasions, or other objectionable disfigurements. Trees 3.1 INSPECTION otherwise be acceptable to the Owner. Give the Owner monthly record of all herbicides, PART 1 - GENERAL shall have sturdy trunks shall have well hardened and vigorous, fibrous root systems which B. Leave the site area broom-clean and wash down all paved areas within the Contract area, insecticides and disease control chemicals used. are not root- or pot-bound. In case the sample plants are found to be defective, the eaving the premises in a clean condition. Leave all walks in a clean and safe condition. A. Obtain certification that final grades to within .10' have been established prior to commencing Landscape Architect reserves the right to reject the entire lot or lots of plants represented B. Tree/Shrub/Groundcover Fertilizer: Tri-C 6-2-4 w/5%S. planting operations. Provide for inclusion of all amendments, settling, etc. Contractor shall be 1.1 RELATED DOCUMENTS by the defective samples. The Landscape Architect is the sole judge of acceptability. Any responsible for shaping all planting areas as indicated on plans or as directed by the Landscape defective plants unsuitable for planting will be considered as samples provided at the 3.5 OBSERVATION SCHEDULE expense of the Contractor. PART 3 - EXECUTION A. Drawings and general provisions of the Contract, including the Project Conditions of Approval, 2. The size of the plants will correspond with that normally expected for species and variety of B. Inspect trees, shrubs and liner stock for injury, insect infestation and trees and shrubs for A. Notify the Landscape Architect in advance for the following site visits, according to the time General and Supplementary Conditions and other Division 1 Specification Sections, apply to commercially available nursery stock or as specified on Drawings. The minimum acceptable size of all plants measured before pruning with the branches in normal position. 3.1 MAINTENANCE shall conform with the measurements, if any, specified on the Drawings in the list of plants C. Do not begin planting until deficiencies are corrected or unacceptable plants replaced. Plant material review: 48 hours to be furnished. Plants larger in size than Specified may be used with the approval of the 1.2 SUMMARY A. Perform maintenance according to the following standards: Landscape Architect, but the use of larger plants will make no change in the Contract price. Soil preparation and planting operations: 48 hours All plants not conforming to the requirements herein Specified shall be considered A. Furnish all labor, materials and equipment necessary to provide and install all trees, plants and 3.2 PREPARATION B. Keep all areas free of debris and weeded and cultivated at intervals of not more than ten (10) defective. Such plants, whether in place or not, shall be marked as rejected and Final walk-through: 7 days. groundcovers as shown on the Drawings. The Contractor's work shall include: days. Include watering, edging, trimming, fertilization, spraying and pest control. immediately removed from the site of work and replaced with new plants at the A. Soil preparation Contractor's expense. The plants shall be of the species, variety, size and condition B. When observations are conducted by someone other than the Landscape Architect, show Prepare soil for planting and furnish all soil amendments. C. Maintain adequate protection of the area. Repair damaged areas at the Contractor's expense. Specified herein or as shown on the Drawings. Under no condition will there be any vidence in writing of when and by whom these reviews were made. Furnish and install all plant materials per the planting plan After approximate finished grades have been established, rip the soil to a depth of 12 substitutions of plants or sizes listed on the accompanying plans, except with the inches. Incorporate the following amendments (per 1,000 square feet)into the top 6 inches Prune plants as required. expressed consent of the Landscape Architect. C. No site visits will commence without all items noted in previous Observation Reports either Stake, tie and guy plant materials as specified. (Application Rates are for base bid, modify per soils analysis): 3.2 TREE AND SHRUB CARE Pruning: At no time shall trees or plant materials be pruned, trimmed or topped prior to Dispose of trash, debris and surplus materials. TRI-C Humate Plus 75 pounds per 1,000 square feet completed or remedied unless such compliance has been waived by the Owner. Failure to delivery. Any alteration of their shape shall be conducted only with the approval and when accomplish punch list tasks or prepare adequately for desired inspections shall make the Maintain the planting until such time as the project has been accepted. Agricultural gypsum - 50 lbs. A. Watering: Maintain a large enough water basin around each plant so that enough water can be in the presence of the Landscape Architect. 4 cubic yards organic amendment (composi Contractor responsible for reimbursing the Owner for the Landscape Architect's time at his Guarantee plant material smaller than 15 gallon for a period of 90 days to commence at applied to establish moisture through the major root zone. Plant material shall be true to botanical and common name and variety as Specified in the final acceptance of project. Guarantee plant material 15 gallon or larger for a period of one Leach soil as necessary to bring SAR to below 3.0. current billing rates per hour (plus transportation costs). No further inspections shall be latest edition of "Annotated Checklist of Woody Ornamental Plants in California, Oregon At the time of planting, the top two inches of all areas to be planted shall be free of stones, year to commence at final acceptance of project. scheduled until this charge has been paid and received. and Washington", published by the University of California School of Agriculture. stumps, or other deleterious matter 1" in diameter or larger, and shall be free from all wire, Nursery Grown and Collected Stock B. Related Sections include the following: plaster or similar objects that would hinder to planting or maintenance. END OF SECTION 029300 Grown under climatic conditions similar to those in locality of project. Division 2 Section "Irrigation System" B. Final Grades a. Prune trees to select and develop permanent scaffold branches that are smaller in Container-grown stock in vigorous, healthy condition, not root-bound or with root diameter than the trunk or branch to which they are attached which have vertical system hardened off. C. Definition: The words Landscape Architect as used herein refer to the Owner's authorized Minor modifications to grade may be required to establish the final grade. spacing of from 18" to 48" and radial orientation so as not to overlay one another. c. Use only flatted or liner stock plant material which is well established in removable Finish grading shall insure proper drainage of the site as depicted on the Civil Engineer's to eliminate diseased or damaged growth; to eliminate narrow V-shaped branch containers or formed homogeneous soil sections. forks that lack strength; to reduce toppling and wind damage by thinning out All areas shall be graded so that the final grades will be 1" below adjacent paved areas, crowns; to maintain a natural appearance; to balance crown with roots. 7. Substitute plant material will not be permitted unless specifically approved in writing by the 1.3 QUALITY ASSURANCE sidewalks, valve boxes, headers, clean-outs, drains, manholes, etc., or as indicated on Under no circumstances will stripping of lower branches ("raising-up") of young Landscape Architect. trees be permitted. Lower branches shall be retained in a "tipped back" or pinched Surface drainage shall be away from all building foundations. A. Source Quality Control condition with as much foliage as possible to promote caliper trunk growth (tapered H. Backfill Mix Eliminate erosion scars prior to commencing maintenance period. trunk). Lower branches may be cut flush with the trunk only after the tree is able to stand erect without staking or other support. Sucker growth may be removed if Submit documentation to Landscape Architect within fifteen (15) days after award of Backfill all planting holes except palms with the following mix (rates are per cubic yard of C. Pre-Planting Weed Control Contract that all plant material is secured for the project. Contractor is responsible for all deemed appropriate by the Landscape Architect. amended soil): c. Thin and shape evergreen trees when necessary to prevent wind and storm material listed on the plant list. Any and all substitutions due to unavailability must be After irrigation system is operational, apply water for five (5) to ten (10) consecutive days damage. Prune deciduous trees during the dormant season. Prune damaged equested in writing prior to confirmation of ordering. Tri-C 6-2-4 w/5% Sulfur 7 pounds per cubic yard of amended soil. as needed, to achieve weed germination. If live perennial weeds are present, spray with a trees or those that constitute health or safety hazards at any time of the year as Plants are subject to approval of Landscape Architect at place of growth or upon deliver Agricultural gypsum - 4 pounds or as recommended by soil testing laboratory. for conformity to Specifications. Such approval will not impair the right of review and non-selective systemic contact herbicide, recommended and applied by an approved required to eliminate these conditions. Organic amendment/ Compost: 15% by volume. rejection during progress of the work. Submit written request for review of plants at place licensed landscape pest control advisor and applicator. Leave sprayed plants intact for at Tri - C Myco Pak at the following rates: least fifteen (15) days to allow systemic kill. Repeat as needed to eliminate perennial of growth to Landscape Architect. State the place of growth and quantity of plants to be Shrubs: Plant size Rate of application in ounces per plant eviewed. Landscape Architect reserves the right to refuse review at this time, if in his Flatted 1-2 ml (pinch)of granular ENDO 120 Clear and remove dead weeds least 1/4" below the surface of the soil over the entire area judgment, a sufficient quantity of the plants is not available. a. The objectives of shrub pruning are the same as for trees. Do not clip into balled 1 gallon 2 gallon to be planted. or boxed forms unless required by the design and directed by the Landscape Maintain site weed-free utilizing mechanical and chemical treatment until final acceptance 5 gallon 15 gallon 2-3 packs b. Make all pruning cuts to lateral branches or buds or flush with the trunk. 7 packs Landscape Planting 029000 - 1 Landscape Planting 029000 - 4 Landscape Planting 029000 - 7 Landscape Planting 029000 - 10 Landscape Maintenance 029390 - 3 Las Canoas Water 1.4 PRODUCT DELIVERY, STORAGE AND HANDLING Staking and Guying: Remove stakes and guys as soon as they are no longer 4. After irrigation system is operational, apply water for five (5) to ten (10) consecutive days SECTION 029390 - LANDSCAPE MAINTENANCE as needed, to achieve weed germination. Apply contact herbicides and wait, as needed, needed. Inspect stakes and guys to prevent girdling of trunks or branches and to prevent rubbing that causes bark wounds. Replace all broken stakes and ties with A. Delivery: 42", 48" box 21 packs before planting. Repeat as required. PART 1 - GENERAL specified materials. 26 packs Installation of Imported Topsoil: Provide and install imported topsoil mix in all raised planters to 1. Deliver fertilizer to site in original unopened containers bearing manufacturer's guaranteed 32 packs a finish grade of 2" below the top of the planter. Allow for settling. Refer to drawings for depth C. Weed Control: Keep basins and areas between plants free of weeds. Use recommended chemical analysis, name, trademark, and conformance to State Law. Furnish Landscape Architect with copies of receipts for all amendments Specified in 1.1 RELATED DOCUMENTS Backfill field-grown palms with washed plaster sand tamped firm. Over excavate hole as legally approved herbicides. Avoid frequent soil cultivation that destroys shallow roots. Section 2.01 - Materials. required to stabilize palms. Deliver all plants with legible identification labels. Use durable waterproof labels with E. Disposal of Excess Soil: Dispose of any unacceptable or excess soil at an offsite location A. Drawings and general provisions of the Contract, including the Project Conditions of Approval, Insect and Disease Control: Maintain a reasonable control with approved materials. water-resistant ink which will remain legible for at least sixty (60) days. I. Stormwater BMP Planter Box and Bioretention Areas Planter Mix approved by Owner. General and Supplementary Conditions and other Division 1 Specification Sections, apply to Protect plant material during delivery to prevent damage to root ball or desiccation of E. Fertilization this Section. Notify the Landscape Architect seven (7) days in advance of delivery of all plant materials 3.3 PLANTING INSTALLATION: Apply fertilizer once each month during the maintenance period at the following rate per Backfill the planter box and bioretention planters with a planter mix consisting of 60 to 70% and submit an itemized list of the plants in each delivery. sand, 15 to 25% compost, and 10 to 20% clean topsoil. The organic content of the soil 1.2 SUMMARY 1,000 square feet of planting area. Top dress with Tri-C 6-2-4 w/5%S at 10-12 pounds nixture shall be 8% to 12%; the pH range shall be 5.5 to 7.5. per 1000 square feet. Avoid applying fertilizer to the root ball and base of main stem. Spread evenly under B. Storage: The planting media placed in the cell shall be highly permeable and high in organic matter A. This Section includes the following: (e.g., loamy sand mixed thoroughly with compost amendment) and a surface mulch layer Plant when weather and soil conditions are suitable and in accordance with locally plant to drip line. Store plant material in shade and protect from weather. After application, water thoroughly. Sand shall be free of stones, stumps, roots or other similar objects larger than 5 1. Furnish all labor, material, equipment and services required to maintain the landscape in Maintain and protect plant material in a healthy, vigorous condition at all times. Place only as many plants as can be installed and watered on that same day millimeters, and have the following gradation. an attractive condition as specified herein for a period of ninety (90) days. Open containers and remove plants to maintain the integrity of the ball of earth surrou C. Handling: Exercise care in handling, loading, unloading and storing of plant materials. Plant Particle size (ASTM D422) the roots. Plant and water immediately after removal from the containers. Do not open materials that have been damaged in any way will be discarded. If installed, such plants will be Replace dead, dying and missing plants and plants of a size, condition and variety containers prior to placing the plants in the planting area. B. Related Sections include the following: replaced with undamaged materials at the Contractor's expense. acceptable to Owner's authorized representative at Contractor's expense B. Lay-out of Major Plantings: Landscape Architect must approve layout of all containerized plants Division 2 Section "Irrigation System" in their containers before any plant pits are dug. If any underground construction or utility lines Division 2 Section "Landscape Planting" 1.5 JOB CONDITIONS 3.3 GROUNDCOVER CARE are encountered in the excavation of planting areas, other locations for planting may be selected by the Landscape Architect. It is the Contractor's responsibility to confirm the location Definition: The words Landscape Architect as used herein shall refer to the Owner's authorized A. Site Conditions A. Weed Control: Control weeds, with chemical systemic spray or by mechanical means, so as to and depth of all underground utilities and obstructions. Refer to Engineer's plans. 4. Compost shall be free of stones, stumps, roots, or other similar objects larger than 3/4". It representative. cause minimal damage to planted materials. shall have a particle size of 98% passing through a ¾" screen or smaller, and meet the Verify the locations of underground utilities prior to excavation. Repair damage to any C. Planting of Trees and Shrubs B. Watering: Water enough that moisture penetrates throughout root zone and only as frequently such utilities resulting from the Contractor's work at Contractor's expense. Soluble Salt Concentration <10mmhos/cm (dS/m) 1.3 QUALITY ASSURANCE Investigate the site for any subsurface drainage or unusual soil conditions which might as necessary to maintain healthy growth. Excavation for planting shall include the stripping and stacking of all acceptable topsoil prove detrimental to the success of the design. Should any such condition exist, notify the encountered within the areas to be excavated for trenches, tree holes, plant pits, and A. Work force: Contractor's representative shall be experienced in landscape maintenance and Moisture: 30-60% dry weight basis Landscape Architect and submit a proposal for corrective measures and their cost. Should C. Fertilization: Fertilize as Specified under 3.02-Tree and Shrub Care. Stability (Carbon Dioxide evolution rate): >80% relative to positive control planting beds. shall have received training in ornamental horticulture and shall be fluent in English. the contractor fail to provide such notification, he will be held solely responsible for any All excavated holes shall have vertical sides with roughened surfaces and shall be of a size Maturity (seed emergence and seedling vigor): >80% relative to positive control corrections deemed necessary by the Owner and the Landscape Architect should damage that is twice the diameter and equal to the depth of the root ball for all trees and shrubs. D. Remove trash weekly. Physical contaminants: <1% dry weight basis Install plant with top of rootball 1" above adjacent grade 1.4 MAINTENANCE PERIOD Protect all planting areas from excessive compaction when trucking plants or other material E. Edge groundcover to keep in bounds and trim top growth as necessary to achieve an overall Topsoil shall be free of stones, stumps, roots, or other similar objects larger than 2 inches B. Field Conditions to the planting site. and have the following characteristics: Continuously maintain all areas involved in this Contract during the progress of the Work and 4. Remove excess soil generated from the planting holes and not used as backfill or in during the maintenance period until final acceptance of the Work by the Owner's authorized 1. The planting plan is diagrammatic. Scaled dimensions are approximate. Prior to Soluble salts:< 4.0 mmhos/cm (dS/m) establishing the final grades. F. Replace dead and missing plants at Contractor's expense. proceeding with installation work, verify all dimensions with field conditions and notify the 5. Can Removal: after removing plant, superficially cut edge roots with knife on three (3) pH range: 5.5 to 7.0 Landscape Architect of any deviation on the plan. Landscape Architect is the final Organic matter:>5% sides and bottom. B. Improper maintenance or poor condition of any planting at the termination of the scheduled authority in interpretation of the plan and in accommodation of unforeseen field conditions. Box Removal: 3.4 GRASSES CARE Carbon to nitrogen ration<20:1 maintenance period may cause postponement of the final completion date of the Contract. Remove bottom of plant boxes before planting. Moisture content: 25-55% Maintenance shall be continued by the Contractor until all Work is acceptable. Remove sides of box without damage to root ball after positioning plant and partly A. In October-November prune cool season grasses (Calamagrostis, Elymus, Fescues, PART 2 - PRODUCTS % Passing Particle size C. In order to carry out the plant establishment Work, the Contractor shall furnish sufficient labor Helictotrichon, Koeleria, Melica, Nasella, Seslaria, Stipa) in preparation for seasonal rains and Center plant in pit or trench. (ASTM D422, D1140) adequate to perform the Work during the plant maintenance period new growth period. Face plants with fullest growth into prevailing wind. Set plant plumb and hold rigidly in position until soil has been tamped firmly around ball or 2.1 MATERIALS Sand (0.05-2.0 mm) D. Criteria for Start of Maintenance: Maintenance period shall not start until all elements of B. In February to March, prune warm season grasses (Acorus, Bouteloua, Calamagrostis, Silt(0.002 – 0.05 mm) construction, planting, and irrigation for the entire Project are Substantially Complete. Project Miscanthus, Muhlenbergia, Pennisetum, Sporobolus) in preparation for spring growth. A. The following soil amendments and fertilizers are to be used for bid price basis. 10. After the plant has been placed, add backfill to the hole to cover approximately one-half will not be segmented into maintenance phases unless specifically authorized in writing by (1/2) of the height of the root ball. Water to thoroughly saturate the root ball and adjacent 6. The planter box shall be covered with mulch when constructed and annually replace to C. Only cut flat across the top: no orbs, domes, rockets or torpedos. When too much old growth is B. All materials shall be of standard, approved and first-grade quality and in prime condition when maintain adequate mulch depth. Mulch shall be: left from the previous season or pruned at the wrong time, sunlight and air cannot get to the Plant Pacs installed and accepted. Deliver any commercially processed or packaged material to the site in Landscape Maintenance 029390 - 4 029000 - 2 Landscape Planting 029000 - 5 Landscape Planting 029000 - 8 029390 - 1 Landscape Maintenance Landscape Planting Las Canoas Water Las Canoas Water Las Canoas Wate Las Canoas Water Las Canoas Water the original unopened container bearing the manufacturer's guaranteed analysis. Supply the Well-aged, shredded or chipped woody debris or plant material. Well-aged mulch Request an inspection to begin the plant maintenance period after all planting and related Work base of the plant where new growth starts, thus leaving the plant unable to regenerate itself a. After the water has completely drained, place Tri-C Myco Paks at the following Landscape Architect with samples of all supplied materials accompanied by analytical data from is defined as mulch that has been stockpiled or stored for at least twelve (12) has been completed in accordance with the Contract Documents. The project will not be an approved laboratory source illustrating compliance or bearing the manufacturer's guaranteed months. Compost meeting the requirements above may also be used: considered complete for the maintenance period to begin unless all plants have been installed Free of weed seeds, soil, roots, and other material that is not bole or branch wood Rate of application in ounces per plant with mulch and any other surface protection in place. If such criteria are met to the satisfaction of the Landscape Architect, a field notification will be issued to the Contractor to establish the 3.5 IRRIGATION SYSTEM 1-2 ml (pinch)of granular ENDO 120 C. "All Around Compost" from All Around Irrigation (805-684-3115), "Compost" from Agromin Mulch depth shall be 2 to 3 inches thick. effective beginning date of the period. Planter box or bioretention area soil mix shall be tested and meet the following Horticultural Products (1-800-AGROMIN) "Valley Compost" through Santa Barbara Stone: A. Set and program automatic controllers for seasonal water requirements. Give Owner's F. Any day when the Contractor fails to adequately maintain plantings, replace unsuitable plants or authorized representative keys to controllers and written instructions on how to turn off system 2-3 packs do weed control or other Work, as determined necessary by the Landscape Architect, will not be 1. Compost derived from processed organic materials consisting of chipped, shredded, or ASTM D4972 credited as one of the plant maintenance Working days. ground recycled wood products, greenwaste, and biosolids mixed and composted Minimum 32 ppm B. Contractor is responsible for the complete operation and maintenance of the irrigation system Set planting tablets with each plant on the top of the root ball while the plants are G. The Contractor's maintenance period will be extended if the provisions required within the according to US EPA, 40 CFR, part 503 Phosporus (Phosphate | Not to exceed 69 ppm except as noted herein (See 1.05 - Guarantee and Replacement). still in their containers so the required number of tablets to be used in each hole 0.56% to 0.84% N based on dry weight. Drawings and Specifications are not fulfilled. – P₂ O₅) can be easily verified by the Landscape Architect. Particle Size: Minumum 78 ppm C. Repair/correct all damages/malfunctions to irrigation system at Contractor's expense. Make a. 95% - 100% passing 6.35 mm standard sieve repairs within one (1) watering period. Not to exceed 500 ppm Raise all plants which settle deeper than the surrounding grade to the correct level. 1.5 GUARANTEE AND REPLACEMENT 80% - 100% passing 2.33 mm standard sieve Should the pH fall outside of the acceptable range, it may be modified with lime (to Fill the remainder of the hole with backfill mix and tamp firm. 4. Salinity: The saturation extract conductivity shall not exceed 3.0 millimhos/centimeter at 25 raise) or iron sulfate plus sulfur (to lower). The lime or iron sulfate must be mixed D. Check weekly all systems for proper operation, to include the following tasks: After backfilling, construct an earthen basin around each plant. Each basin shall be of a degrees centigrade as determined by saturation extract method. A. Guarantee all plant material installed under the Contract against any and all poor, inadequate or uniformly into the soil mix prior to use in the planter boxes or bioretention mix. depth sufficient to hold at least two (2) inches of water. The basins shall be constructed of Iron content: Minimum 0.08% dilute acid soluble Fe on dry weight basis. Should the soil mix not meet the minium requirement for potassium, it may be amended backfill materials. Remove basin in all turf areas after initial watering. Add 10 inferior materials and/or Workmanship for a period of one (1) year. Replace at Contractor's Check and flush 1/2" polyethylene lines once every week. Organic Content: Minimum 92% based on dry weight and determined by ash method. modified with potash. Magnesium sulfate and potash must be mixed uniformly into drops Superthrive to each 1 gallon of water at the following rates expense any plant found to be dead or in poor condition due to faulty materials or Check and clean filters once every month. Dark brown to black in color, not malodorus. the soil mix prior to use in planter boxes or bioretention mix. Workmanship, as determined by the Landscape Architect. Check drip emitters once every week for proper operation. Shall contain no paint, petroleum products, herbicides, fungicides, or other chemical Limestone shall contain not less than 85% calcium and magnesium carbonates. 1 quart per each plant from flats Clear weed growth from around emitter areas. residues that would be harmful to plant or animal life. Inert contaminants such as glass, B. Replace immediately any materials found to be dead, missing or in poor condition during the Dolomitic (magnesium) limestone shall contain at least 10 percent magnesium as 1 gallon per 1 gallon plant Check exposed tubing for leaks and kinking. plastic, wood, metal dirt, or rocks shall not exceed 0.1 % maintenance period. The Landscape Architect is the sole judge of the condition of material. magnesium oxide and 85 percent calcium and magnesium carbonates. Limestone 3 gallons per 5 gallon plant Check pressure regulator for correct pressure setting (PSI). Check controller program for correct operation. Adjust automatic controller program (four shall conform to the following gradation: 5 gallons per 15 gallon plant Replace material within ten (10) days of written notification by the Landscape Architect. Minimum Percent Passing by Weight 10 gallons per 24" box times per year) to accommodate seasonal water requirements. Give owner keys to D. Soil Amendments C. The commencement of all Guarantees shall be noted in the Certificate of Substantial controller and written instruction on how to turn off system in case of emergency. 20 gallons per 30" box Completion which shall be signed by the Owner, Contractor and Landscape Architect. g. 30 gallons per 36" box 1. Soil sulfur: Agricultural grade sulfur containing a minimum of 99% sulfur (expressed as E. Seasonal Application Adjustment 15. Pruning: Limit pruning to the minimum necessary to remove injured twigs and branches. g. Iron sulfate shall be a constituent of an approved horticultural product produced as Iron sulfate: 20% Iron (expressed as metallic iron), derived from ferric and ferrous sulfate, 1.6 INSPECTIONS and the shape the plant material as directed by the Landscape Architect. Pruning may not 1. Adjust water application according to the following guidelines: a fertilizer for supplying iron and as a soil acidifier. 10% sulfur (expressed as elemental) Magnesium sulfate shall be a constituent of an approved horticultural product be done prior to delivery of plants. Cuts over 3/4" in diameter shall be painted with tree Calcium Carbonate: 95% lime as derived from oyster shells. A. Request normal progress inspection from the Landscape Architect at least seven (7) days in a. For winter months (Dec.-Feb.): 25-50 percent of maximum mid-summer Gypsum: Agricultural grade product containing 98% minimum calcium sulfate. 16. Staking and Guying: Stake trees only if directed to do so by the Landscape Architect. Potash shall be a constituent of an approved horticultural product produced as a advance of anticipated inspection. Inspections are as follows: Zinc: Agricultural grade zinc sulfate (36% elemental zinc). Complete staking of all trees immediately after planting. Install all stakes plumb and as b. For fall and spring (Sept.-Nov., Mar.-May): 50-75 percent of maximum mid-Complete Green PAM 'Soil Drain' (365 Coral Circle, El Segundo, CA 90245, 310-615indicated in details. Allow for staking of all trees, providing unit price, and credit Owner for Commencement of maintenance (Pre-maintenance). summer application rate. 0116): soil aggregating polymer. all trees not staked. Perform watering in the early morning or late afternoon hours. J. Guying and Staking Materials: Install per plant list. At thirty (30) day intervals through maintenance period Completion of maintenance period - Final Walk-through: no more than ten (10) days D. Planting of Groundcovers: prior to end of maintenance period. END OF SECTION 029390 Wood tree stakes: Lodge pole pine, fully treated with Coppernapthanate Wood 1. Planting fertilizer: Tri-C 6-2-4 w/5% S (Tri-C Enterprises: 1-800-927-3311 info@tri-Groundcover plants shall be grown in flats as indicated on the plans. Leave flat-grown B. All conditions noted in Landscape Planting (Section 02950) apply herein. Preservative in strict accordance with Federal Spec. TT-W-572 Type 1 Composition B, 2" plants in those flats until transplanting. Keep the flat's soil moist so that it will not fall apart (min. nominal size) diameter x 10 ft. long (12 ft. long for 24" box size trees); no split stakes. Tri-C Myco Paks (Tri-C Enterprises: 1-800-927-3311 tric@earthlink.net). when lifting the plants. Superthrive vitamin hormone supplement Plant groundcover in straight rows and evenly spaced, unless otherwise noted, and at Duckbill Professional Tree Guying Systems: Foresight Products 1- 800- 325-5360 1.7 FINAL ACCEPTANCE OF THE PROJECT intervals called out in the Drawings. Use triangular spacing unless otherwise noted on the F. Imported Topsoil: Fertile, friable, natural topsoil of character and texture similar to the project K. Headers: 2" x 4" Trex brand Saddle Brown color A. Prior to the date of the Final Walk-through, acquire from the Landscape Architect approved site soil; without admixture of subsoil material, obtained from a well-drained arable site, Sprinkle plants after planting until the entire hole is soaked to its full depth. reproducible prints and record information from the job record set all changes made to all reasonably free from clay, lumps, coarse sands, stones, plants, roots, sticks, and other foreign Exercise care at all times to protect the plants after planting. Repair any damage to plants drawings during construction, label said prints "Record Drawings", and deliver to the Landscape L. Tree Paint: Morrison Tree Seal, Cabot Tree Paint, or equal materials, with an acidity range of between pH 5.8 and 8.2. The sodium absorption ratio (SAF Architect and as required to any Local Agency. shall not exceed 6 and the electrical conductivity (Ece) of the saturation extract of this soil shall

Las Canoas Water

PART 3 - EXECUTION

Las Canoas Water

caused by this work and leave the ground in a neat and orderly condition throughout the site.

B. All turn-over items noted in other Specification sections shall be delivered prior to Final Walk-

029390 - 2

Landscape Maintenance

PART 2 - PRODUCTS

Landscape Maintenance

Las Canoas Water

2.1 MATERIALS

802 EAST COTA STREET, SUITE A SANTA BARBARA, CA 93103 TEL (805) 963-1955

CONSULTANTS

PLANNER SUZANNE ELLEDGE PLANNING & PERMITTING SERVICES 1625 State Street Santa Barbara, CA 93101 TEL (805) 966-2758

CIVIL ENGINEER FLOWERS & ASSOCIATES, INC. 201 N. Calle Cesar Chavez, Suite 100 Santa Barbara, CA 93103 TEL (805) 966-2224

LANDSCAPE ARCHITECT ARCADIA STUDIO, INC. 202 East Cota Street Santa Barbara, CA 93101 TEL (805) 962-9055

STRUCTURAL ENGINEER GREER STRUCTURAL ENGINEERING 971 Cheltenham Road Santa Barbara, CA 93105 TEL (805) 452-3031

MECHANICALCAL ENGINEER MECHANICAL ENGINEERING CONSULTANTS, INC. 1616 Anacapa Street Santa Barbara, CA 93101 TEL (805) 957-4632

FIRE PROTECTION ENGINEER COLLINGS & ASSOCIATES, INC. 260 Maple Court, Suite 241 Ventura, CA 93001 TEL (805) 658-0003

ELECTRICAL ENGINEER ALAN NOELLE ENGINEERING 1616 Anacapa Street Santa Barbara, CA 93101 TEL (805) 563-5444

ARCHITECT STAMP CONSULTANT STAMP No. 2911 C - 29353EXP. 08/31/20 FOF CALIFO

AGENCY APPROVAL

REVISIONS DESCRIPTION

THE ARCHITECT DOES NOT REPRESENT THAT THESE PLANS OR THE SPECIFICATIONS ARE SUITABLE FOR ANY SITE OTHER THAN THE ONE FOR WHICH THEY WERE SPECIFICALLY PREPARED. THE ARCHITECT DISCLAIMS RESPONSIBILITY FOR THESE PLANS AND SPECIFICATIONS IF THEY ARE USED IN WHOLE OR IN PART AT ANY OTHER SITE

PROJECT OWNER & TITLE

REVERE CAPITAL, LLC 2301 CEDAR SPRINGS RD. SUITE 200 DALLAS, TX 75201

WATER UTILITIES IMPROVEMENTS

1964 LAS CANOAS ROAD SANTA BARBARA, CA 93105

SHEET TITLE

029390 - 5

PLANTING SPECIFICATIONS

JOB NUMBER: 18045.04

LP-5

DATE: AUGUST 31,2019

A. After all planting operations have been completed, remove all trash, excess soil, empty plant

containers, and rubbish from the property. Repair all scars, ruts or other marks in the ground

3.4 CLEAN-UP

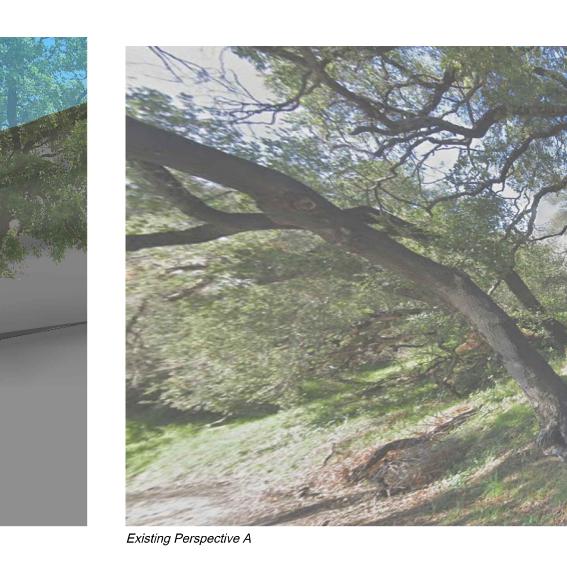
Landscape Planting

DRAWN BY: QP

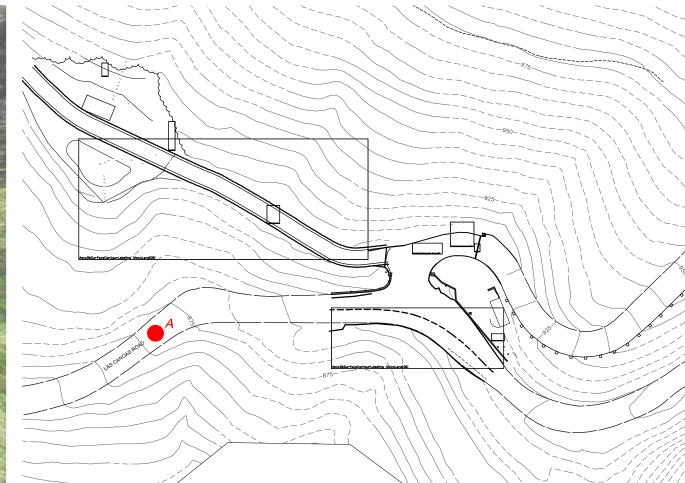


Proposed Perspective A

Proposed Perspective B

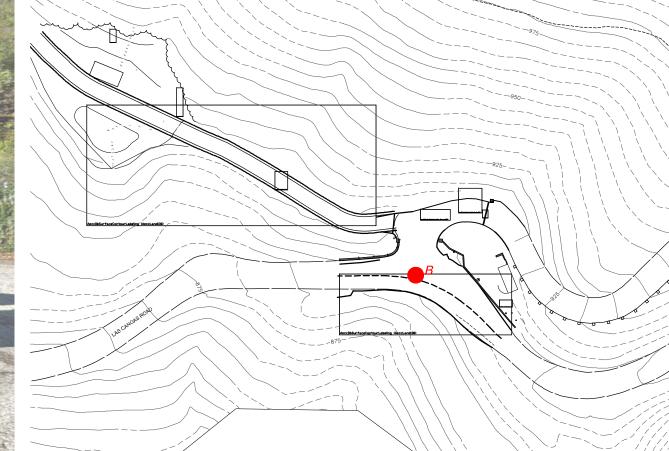






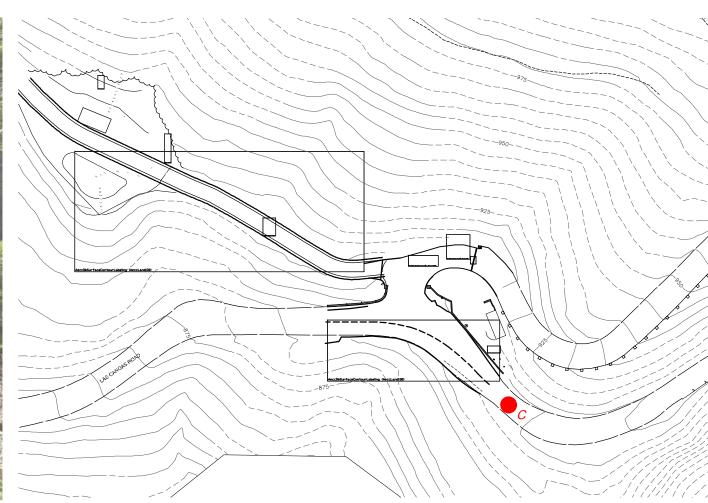




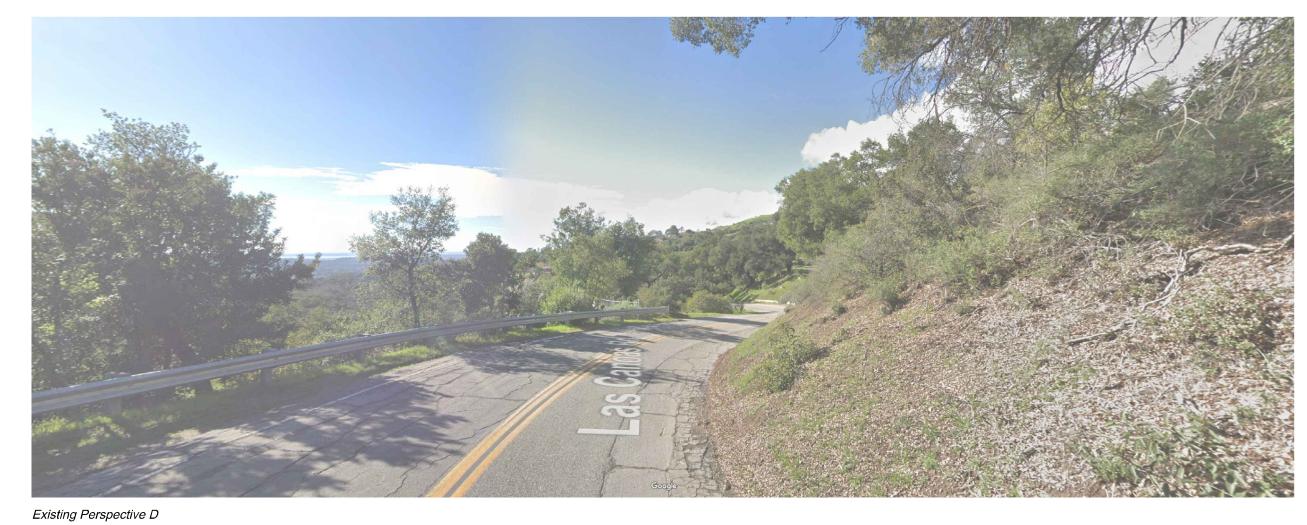


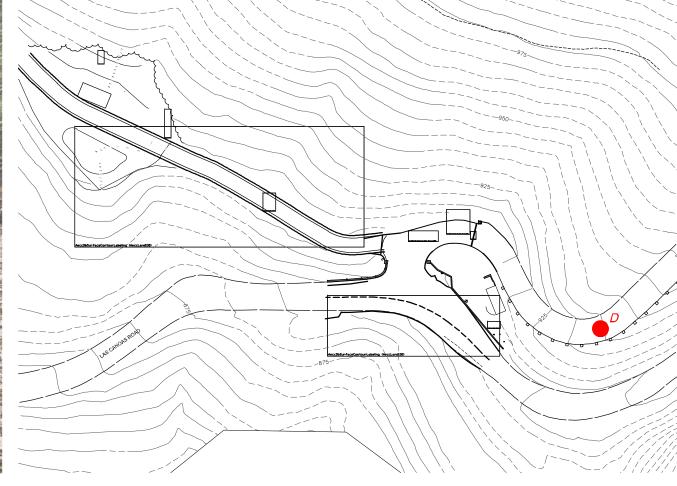














Heteromeles arbutifolia Toyon









802 EAST COTA STREET, SUITE A

SANTA BARBARA, CA 93103 TEL (805) 963-1955

CONSULTANTS

TEL (805) 966-2758

PLANNER SUZANNE ELLEDGE PLANNING & PERMITTING SERVICES 1625 State Street Santa Barbara, CA 93101

<u>CIVIL ENGINEER</u> FLOWERS & ASSOCIATES, INC. 201 N. Calle Cesar Chavez, Suite 100 Santa Barbara, CA 93103 TEL (805) 966-2224

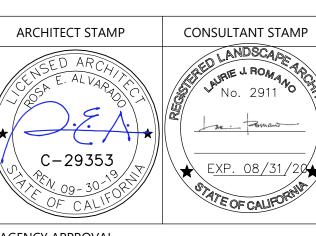
LANDSCAPE ARCHITECT ARCADIA STUDIO, INC. 202 East Cota Street Santa Barbara, CA 93101 TEL (805) 962-9055

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ELECTRICAL ENGINEER ALAN NOELLE ENGINEERING 1616 Anacapa Street Santa Barbara, CA 93101



AGENCY APPROVAL

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THE ARCHITECT DOES NOT REPRESENT THAT
THESE PLANS OR THE SPECIFICATIONS ARE
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FOR WHICH THEY WERE SPECIFICALLY
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IN PART AT ANY OTHER SITE

PROJECT OWNER & TITLE REVERE CAPITAL, LLC 2301 CEDAR SPRINGS RD, SUITE 200 DALLAS, TX 75201

WATER UTILITIES **IMPROVEMENTS**

1964 LAS CANOAS ROAD SANTA BARBARA, CA 93105

SHEET TITLE

IMAGES & **PERSPECTIVES**

JOB NUMBER: 18045.04 DRAWN BY: QP SHEET NO.

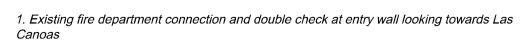
LSK-1













2. Looking toward Las Canoas from entry drive



3. Looking south-west toward Las Canoas from above existing entry wall



4. Looking south-east toward Las Canoas Rd. Existing pump house above wall



5. Looking up driveway at existing pump house



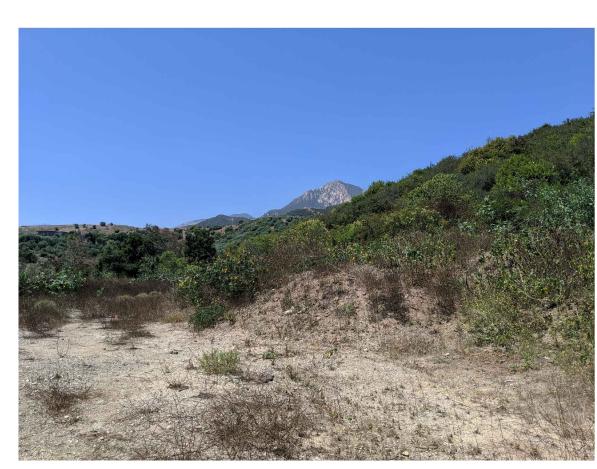
6. Looking south-west toward access road to proposed pump house



7. Looking south-east down access road toward entry walls



8. Proposed pump house location



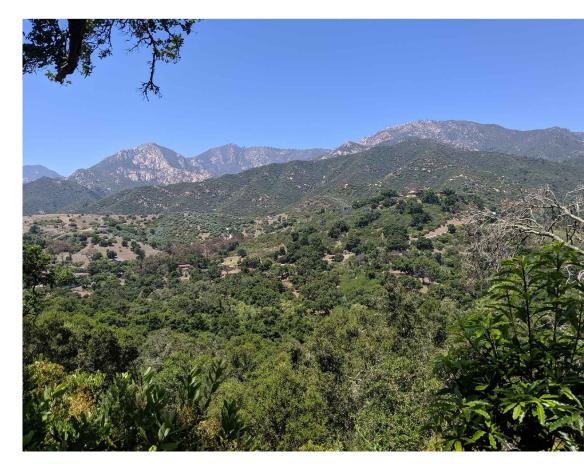
9. Proposed pump house location



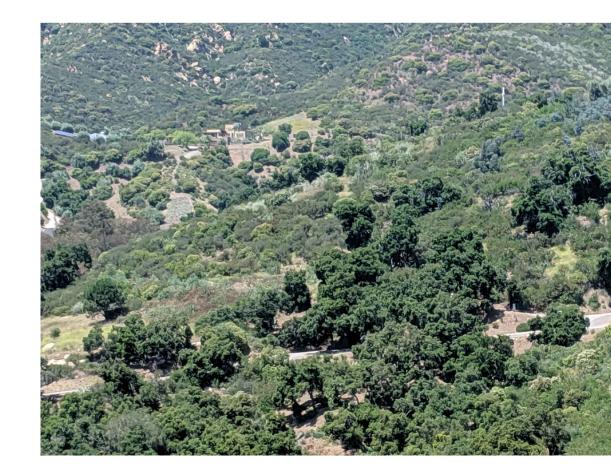
10. Proposed pump house location



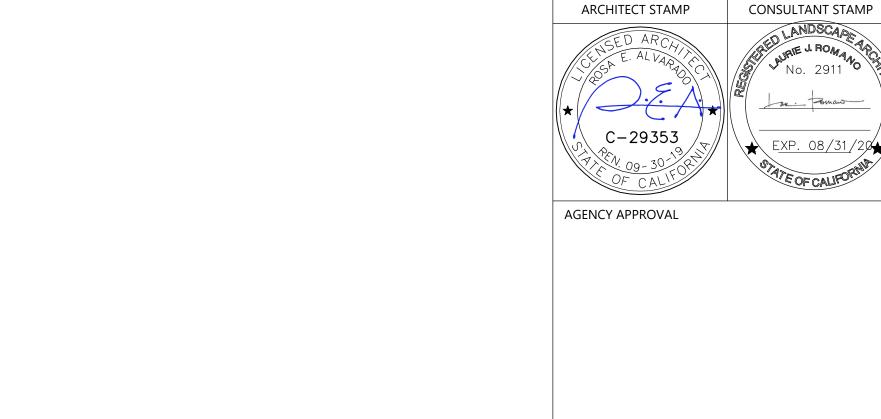
11. Looking north from proposed pump house location



12. View from pump house location to nearest properties







REVISIONS #		
NO.	DATE	DESCRIPTION

802 EAST COTA STREET, SUITE A SANTA BARBARA, CA 93103 TEL (805) 963-1955

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MECHANICALCAL ENGINEER

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MECHANICAL ENGINEERING CONSULTANTS, INC.

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PROJECT OWNER & TITLE REVERE CAPITAL, LLC 2301 CEDAR SPRINGS RD, SUITE 200

WATER UTILITIES

IMPROVEMENTS 1964 LAS CANOAS ROAD SANTA BARBARA, CA 93105

DALLAS, TX 75201

SHEET TITLE

EXISTING SITE *IMAGES*

JOB NUMBER: 18045.04



ELECTRICAL SPECIFICATION NOTES

PROVIDE ALL ELECTRICAL WORK, AND MATERIALS AS SHOWN ON THE DRAWINGS, AS CALLED FOR HEREIN, AND AS IS NECESSARY TO FURNISH A COMPLETE INSTALLATION.

THE INSTALLATION SHALL CONFORM TO ALL THE REQUIREMENTS OF THE CURRENTLY ADOPTED CALIFORNIA ELECTRICAL CODE. STATE OF CALIFORNIA TITLE 24. ALL OTHER APPLICABLE CODES AND ORDINANCES, AND THE REQUIREMENTS OF THE FIRE MARSHALL. ALL EQUIPMENT AND WIRING SHALL BEAR THE APPROVAL STAMP OF UNDERWRITERS' LABORATORY (UL) OR AN APPROVED TESTING LABORATORY. PAYMENT FOR ALL INSPECTION FEES AND PERMITS ARE PART OF THIS CONTRACT.

THIS CONTRACT SHALL BE RESPONSIBLE FOR THE SAFETY, AND GOOD CONDITION, OF ALL MATERIALS AND EQUIPMENT FOR THE ENTIRE INSTALLATION. AND UNIT COMPLETION OF WORK. ERECT AND MAINTAIN APPROVED AND SUITABLE BARRIERS, PROTECTIVE DEVICES, AND WARINNG SIGNS. BE FULLY RESPONSIBLE FOR ANY LOSS OR INJURY TO PERSONS OR PROPERTY RESULTING FROM NEGLIGENT MAINTENANCE AND/OR ENFORCEMENT OF ALL SAFETY PRECAUTIONS AND WARNINGS.

COORDINATE THE ELECTRICAL INSTALLATION WITH ALL OTHER TRADES.

ALL SAWCUTTING, TRENCHING, BACKFILLING, AND PATCHING SHALL BE PART OF THIS CONTRACT. ALL BACKFILLING, COMPACTION, AND RESURFACING METHODS SHALL BE APPROVED BY THE ARCHITECT.

RACEWAYS FOR ALL CONDUCTORS IN EXPOSED AREAS LESS THAN 5'-0" ABOVE GRADE SHALL BE GALVANIZED STEEL CONDUIT OR PVC SCHEDULE 80, AS PERMITTED BY BUILDING CONSTRUCTION TYPE. UNDERGROUND CONDUITS SHALL BE BURIED A MINIMUM OF 24" BELOW GRADE, AND MAY BE PVC SCHEDULE 40. ALL CONDUIT RISERS FROM UNDERGROUND RUNS SHALL BE PVC SCHEDULE 80 OR RIGID GALVANIZED STEEL. RACEWAYS IN ALL CONCEALED AREAS MAY BE TYPE EMT. FLEXIBLE STEEL CONDUIT MAY BE USED IN CONCEALED AREAS, UP TO A MAXIMUM LENGTH OF 12'-0". IF A SUITABLE BONDING WIRE IS INSTALLED. THIS BONDING CONDUCTOR SHALL BE IN ADDITION TO THE REQUIRED EQUIPMENT GROUNDING CONDUCTOR. CONCEALED RACEWAYS FOR LOW VOLTAGE SYSTEMS WITHIN BUILDING CONSTRUCTION MAY BE EQUAL TO CARLON TYPE "EFT". ALL EMPTY CONDUITS SHALL HAVE A SUITABLE PULLCORD INSTALLED. A SUITABLE GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL LINE VOLTAGE CONDUIT RUNS. NOTE THAT THIS CONDUCTOR IS NOT NECESSARILY SHOWN ON THE DRAWINGS. CONDUCTOR-IN-CONDUIT TYPE SYSTEMS, SUCH AS 'MC' CABLE SHALL NOT BE ALLOWED UNLESS SPECIFICALLY CLEARED BY THE ENGINEER. NO MORE THAN THREE NINETY DEGREE BENDS SHALL BE ALLOWED IN ANY CONDUIT RUN, BETWEEN PULL POINTS.

OUTLET AND JUNCTION BOXES SHALL BE GALVANIZED STEEL, 4" SQUARE BY 1-1/2" DEEP, OR LARGER. THEY SHALL BE FLUSH MOUNTED IN ALL FINISHED AREAS, AND SHALL INCLUDE A PLASTER RING SUITABLE FOR THE DEVICE MOUNTED IN THE BOX. TELEPHONE AND COMMUNICATIONS OUTLETS MAY CONSIST OF THE PLASTER RING, BUT NO BOX, WHERE NOISE TRANSMISSION FROM ONE ROOM TO THE NEXT IS NOT AN ISSUE. UNLESS OTHERWISE NOTED, CONDUIT STUBS SHALL STILL BE REQUIRED FOR ALL COMMUNICATIONS OUTLETS INTO ACCESSIBLE CEILING SPACE. ALL BOXES SHALL BE LISTED FOR THEIR USE, INCLUDING ANY FIRE RATING. ADDITIONALLY, REGARDLESS OF OUTLET LOCATIONS SHOWN ON THESE PLANS, BOXES SHALL BE LOCATED AS REQUIRED TO COMPLY WITH NOISE AND FIRE SEPARATION REQUIREMENTS.

PROVIDE ALL CONDUIT, WIRING, OUTLETS, DISCONNECT OR MANUAL MOTOR STARTER SWITCHES, AND EQUIPMENT NECESSARY TO CONNECT MECHANICAL SYSTEMS AND EQUIPMENT. INSTALL OUTLETS AND CONTROL WIRING FOR LOW VOLTAGE CONTROL EQUIPMENT, IF REQUIRED. PROVIDE ALL REQUIRED CONDUIT FOR LOW VOLTAGE SYSTEMS.

LIGHT SWITCHES SHALL BE 20A, EQUAL TO HUBBELL #CS120 SERIES. DUPLEX RECEPTACLES SHALL BE 20A, EQUAL TO HUBBELL #CRF20 SERIES. "ALL DEVICE COVERPLATES IN FINISHED AREAS SHALL BE SMOOTH PLASTIC, OR BRUSHED ALUMINUM, AS SPECIFIED BY THE ARCHITECT. ALL DEVICE COVERPLATES IN UNFINISHED AREAS MAY BE SMOOTH PLASTIC OR PRESSED STEEL, AS SPECIFIED BY THE ARCHITECT. ALL COVERPLATES IN EXTERIOR LOCATIONS SHALL BE WEATHERPROOF. DEVICE AND COVERPLATE COLORS SHALL BE AS SPECIFIED BY THE ARCHITECT. WHERE MULTIPLE DEVICES EXIST, THEY SHALL BE GROUPED TOGETHER, AND GROUPED DEVICES SHALL BE UNDER A SINGLE COVER PLATE. DEVICES ON AN EMERGENCY OR BACKUP POWER SYSTEM SHALL BE RED IN COLOR.

ALL WIRING SHALL BE COPPER. INSULATION FOR BRANCH CIRCUIT CONDUCTORS SHALL BE TYPE "THWN". CONDUCTORS LARGER THAN #6 AWG MAY BE TYPE "THWN" OR "THW".

PROVIDE BRANCH CIRCUIT WIRING, OUTLETS, DEVICES, AND CONNECTIONS TO ALL EQUIPMENT ELECTRICAL EQUIPMENT AND MATERIAL SHALL BE LISTED, LABELED, AND INSTALLED PER A RECOGNIZED ELECTRICAL TESTING LABORATORY.

STEEL, LIQUID-TIGHT, FLEXIBLE CONDUITS ARE REQUIRED FOR MOTOR CONNECTIONS, CONNECTIONS TO LIQUID-HANDLING EQUIPMENT, AND CONNECTIONS IN WET OR EXTERIOR

PROVIDE CONDUIT SEALS FOR ALL CONDUITS PENETRATING WEATHERPROOFING OR WEATHERPROOF ENCLOSURE ENVELOPE. MASTIC SEAL ALL CONDUIT OPENING PENETRATIONS COMPLETELY WATERTIGHT.

UNLESS SHOWN OTHERWISE, FUSED DISCONNECT SWITCHES SHALL BE PROVIDED WITH LOW-PEAK, DUAL ELEMENT FUSES SIZED TO EQUIPMENT NAMEPLATE FUSE CURRENT RATING. MANUAL MOTOR STARTERS SHALL BE PROVIDED WITH SIMILARLY SIZED FUSIBLE ELEMENTS. SWITCHES EXPOSED TO THE WEATHER SHALL BE TYPE NEMA 3R. ALL MOTOR DISCONNECTING MEANS SHALL BE HORSEPOWER RATED, BASED ON UNIT SERVED.

PROVIDE ALL MATERIALS AND WORK REQUIRED TO LOCATE, AND CONNECT TO, EXISTING DISTRIBUTION EQUIPMENT. UPDATE EXISTING PANELBOARDS WITH NEW TYPEWRITTEN CIRCUIT DIRECTORIES, AND FURNISH NEW CIRCUIT BREAKERS AS REQUIRED. EXISTING CIRCUIT DESCRIPTIONS IN EXISTING PANEL DIRECTORIES SHALL BE USED FOR EXISTING CIRCUITS TO REMAIN IF THEY ARE MORE DETAILED THAN THE PANEL SCHEDULES SHOWN IN THESE PLANS. RECONNECT ANY BRANCH CIRCUITS INTERRUPTED DURING DEMOLITION THAT ARE TO REMAIN.

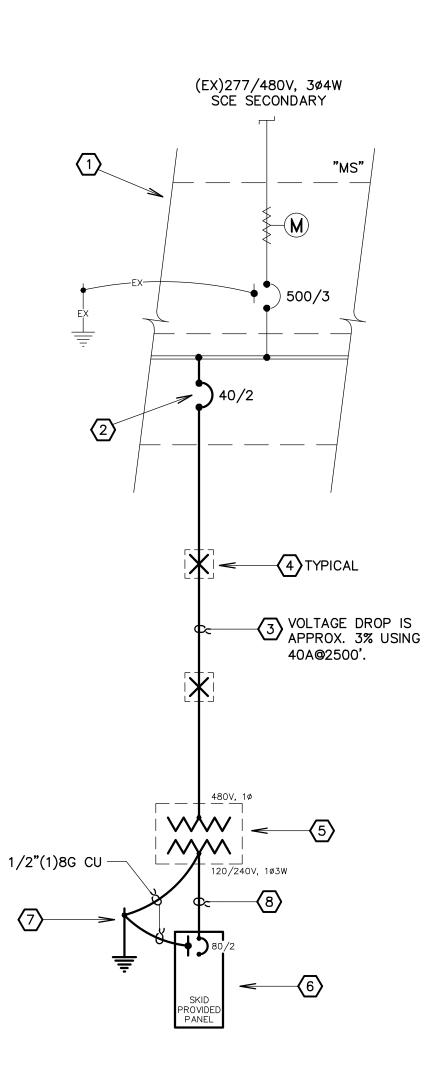
RE-USE OF EXISTING BRANCH CIRCUIT CONDUITS AND WIRING IS ACCEPTABLE IF IN COMPLIANCE WITH ALL APPLICABLE CODES AND ORDINANCES, AND APPROVED BY THE AHJ.

PANELBOARD CIRCUIT DIRECTORIES SHALL INCLUDE WHERE THE PANEL IS FED FROM.

INFORMATION SHOWN WAS OBTAINED FROM "AS-BUILT" DRAWINGS. VISIT THE SITE PRIOR TO BID TO VERIFY EXISTING CONDITIONS, AND MAKE ALLOWANCE FOR VARIATIONS TO THAT WHICH IS SHOWN.

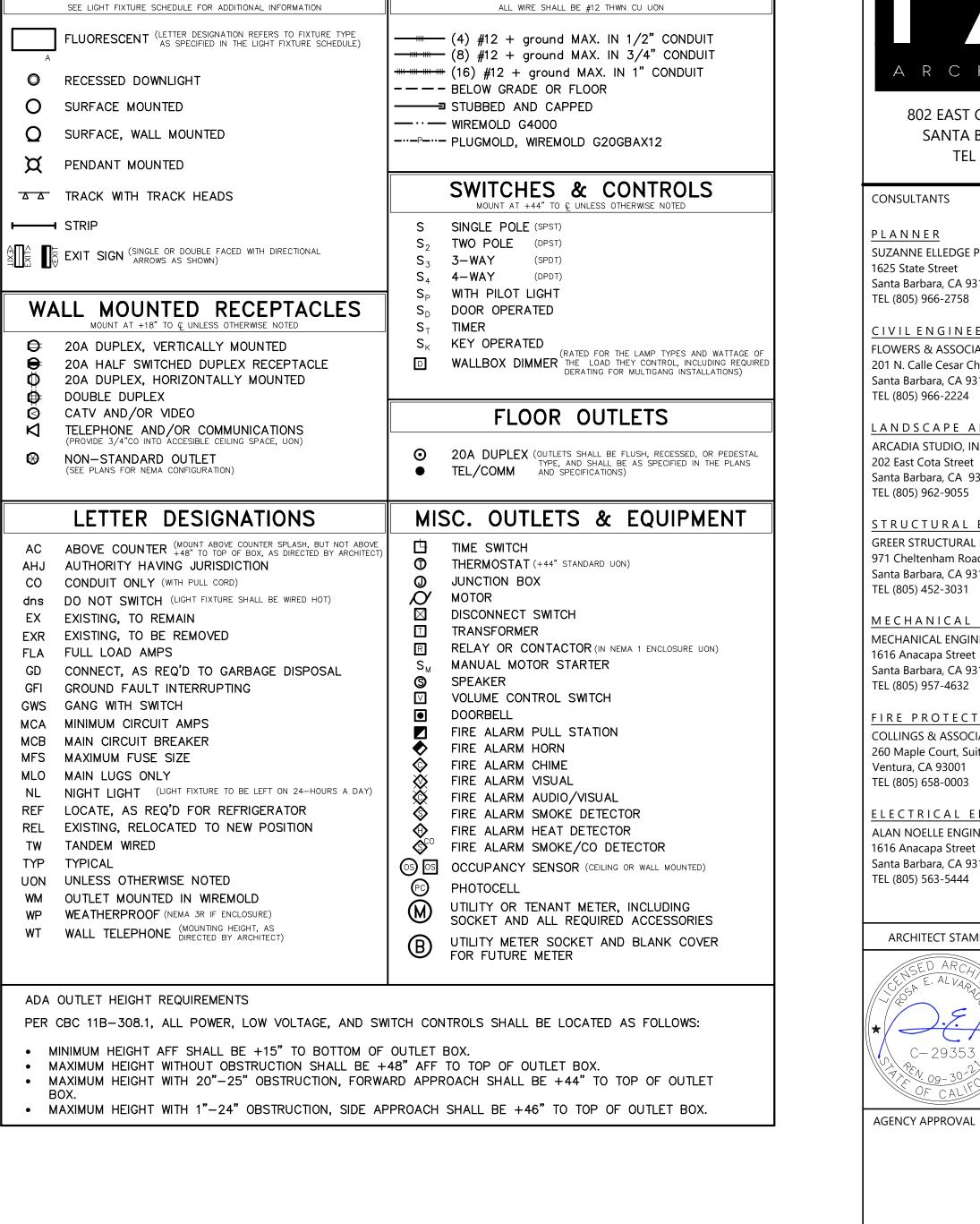
(5) COPIES OF SUBMITTAL DRAWINGS ARE REQUIRED FOR DISTRIBUTION EQUIPMENT, DEVICES, AND COVERPLATES. SUBSTITUTIONS MAY BE APPROVED BY THE ENGINEER IF THE SUBMITTAL SHOWS A REASONABLE BENEFIT TO THE OWNER. NO PRIOR APPROVAL FOR SUBSTITUTIONS SHALL BE GIVEN BEFORE SUBMITTALS. AS SUCH, BID COMPARISONS MUST BE MADE BASED ON SPECIFIED EQUIPMENT. THE ENGINEER RESERVES THE RIGHT TO REJECT SUBMITTALS BASED ON INCOMPLETENESS OF THE SUBMITTAL, AS WELL AS NOT MEETING THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. SUBMITTALS MUST BE PROVIDED FOR SPECIFIED EQUIPMENT, AS WELL AS ANY SUBSTITUTIONS.

THE ELECTRICAL DRAWINGS SHALL BE TREATED AS DIAGRAMATIC IN NATURE. THEY SHALL NOT BE USED TO DETERMINE EXACT DIMENSIONS OR LOCATIONS FOR ANY DEVICE. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COORDINATING WITH ARCHITECTURAL ELEMENTS AND PLANS, OTHER DISCIPLINES, THE ARCHITECT, AND OWNER, FOR ALL LOCATIONS, BEFORE COMPLETING ANY WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS IN RELOCATING ANY DEVICE OR CONNECTION INSTALLED IN THE WRONG LOCATION. THE CONTRACTOR SHALL ALLOW SUFFICIENT TIME FOR COORDINATION.



SEE SHT E1.1 FOR NOTES LEGEND

ONE LINE DIAGRAM



ELECTRICAL SYMBOLS

CONDUIT & WIRE



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ARCHITECT STAMP

AGENCY APPROVAL

CONSULTANT STAMP

REVISIONS

DESCRIPTION

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PROJECT OWNER & TITLE

REVERE CAPITAL, LLC

2301 CEDAR SPRINGS RD, SUITE 200 **DALLAS, TX 75201**

WATER UTILITIES **IMPROVEMENTS**

1964 LAS CANOAS ROAD SANTA BARBARA, CA 93105

ELECTRICAL SYMBOLS, SPECS, **SCHEDULES**

JOB NUMBER: 18045.04 SHEET NO.

E1.0 DATE: JANUARY 17, 2020

Electrical Engineering Lighting Design

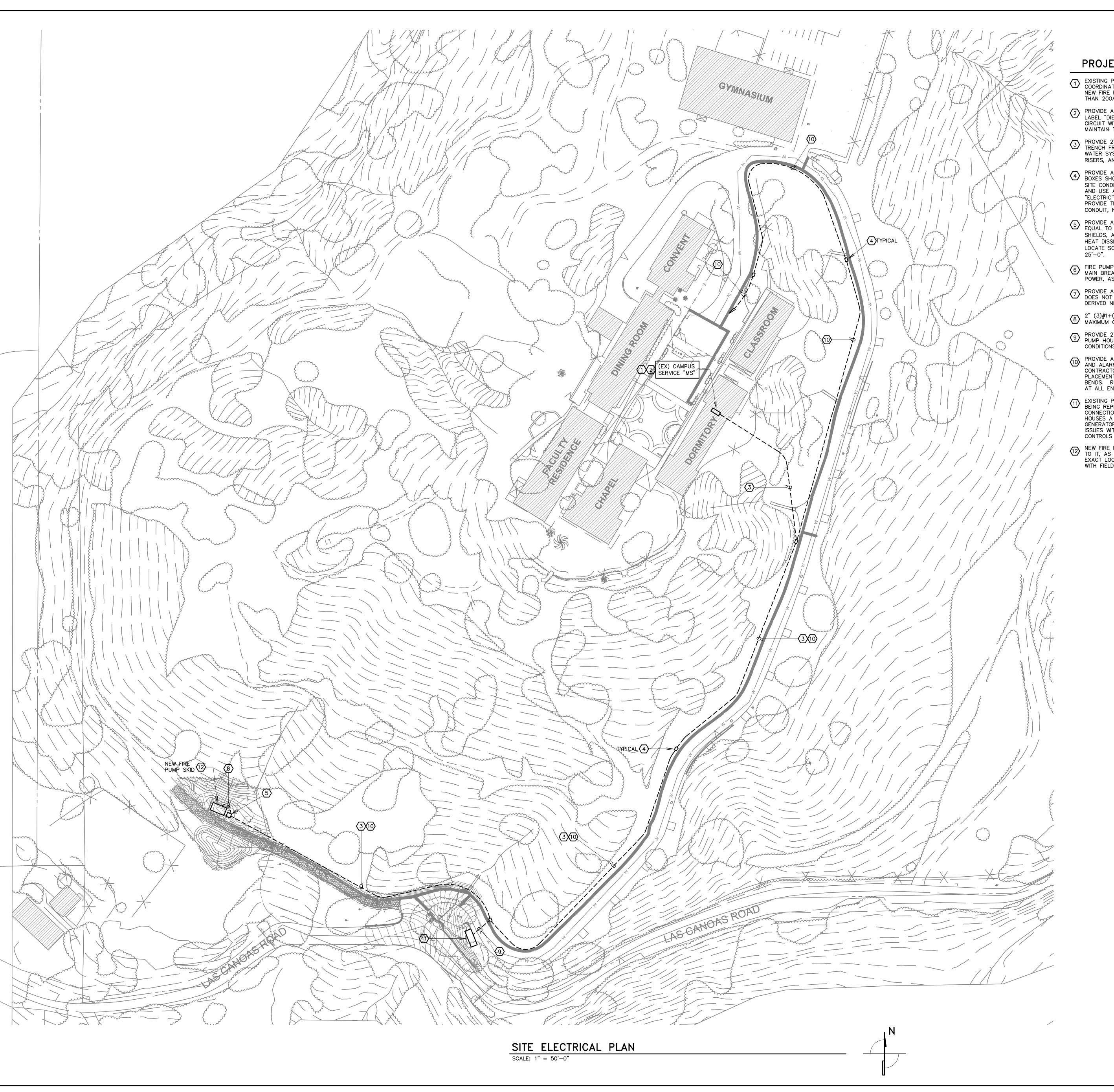
Alan Noelle Engineering

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1616 Anacapa Street

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PROJECT NOTES LEGEND

- EXISTING PROPERTY MAIN SWITCHBOARD, IN LOWER FLOOR OF DORM BUILDING. COORDINATE BEST ROUTE OUT OF BUILDING, AND INTO TRENCH OUT TOWARDS NEW FIRE PUMP SKID. NOTE THAT EXISTING LOAD ON SWITCHBOARD IS LESS THAN 200AMPS.
- PROVIDE A NEW 40A/2P BREAKER IN EXISTING 480V DISTRIBUTION OF "MS", LABEL "DIESEL FIRE PUMP SKID ACCESSORIES". MATCH EXISTING SHORT CIRCUIT WITHSTAND RATINGS OF THE EXISTING BRANCH BREAKERS, TO MAINTAIN THE EXISTING WITHSTAND RATING OF THE SWITCHBOARD.
- PROVIDE 2"(2)#4/0+(1)#2G THWN CU TO THE FIRE PUMP SKID. RUN IN TRENCH FROM SERVICE, DOWN TO ROAD, AND THEN RUN IN SAME TRENCH AS WATER SYSTEM. CONDUIT SHALL BE PVC SCHEDULE 40, WITH SCHEDULE 80 RISERS, AND BE BURIED A MINIMUM OF 24" BELOW GRADE.
- PROVIDE A 11"X17" CONCRETE PULLBOX WHERE REQUIRED FOR THIS RUN.
 BOXES SHOWN HERE ARE SUGGESTIONS, AND SHOULD BE CHECKED AGAINST
 SITE CONDITIONS. PROVIDE BOXES ON A MINIMUM 6" CRUSHED GRAVEL BASE
 AND USE A TRAFFIC RATED BOLT-DOWN, CONCRETE LID. LABEL BOX
 "ELECTRIC". IN ADDITION, WHERE REQUIRED, AND AT SIMILAR INTERVALS,
 PROVIDE THE SAME SIZE PULL BOX FOR THE LOW VOLTAGE COMMUNICATIONS
 CONDUIT, NOTE 10 BELOW. LABEL THAT BOX COVER "COMM".
- PROVIDE A 25KVA, 480V TO 120/240V STEP DOWN TRANSFORMER AT SKID, EQUAL TO SQUARE D #EX25S3H. PROVIDE WITH APPROPRIATE WEATHER SHIELDS, AND LOCATE WITH A MINIMUM OF 12" ALL AROUND FOR PROPER HEAT DISSIPATION. MOUNT ON A NEW 6" THICK HOUSE KEEPING PAD. LOCATE SO SECONDARY CONDUCTORS (NOTE 8, BELOW) ARE NO LONGER THAN
- FIRE PUMP SKID IS SUPPLIED WITH A MAIN POWER PANEL WITH AN 80A/2P MAIN BREAKER. DETERMINE EXACT LOCATION IN THE FIELD AND CONNECT POWER, AS REQUIRED.
- PROVIDE A 10'x3/4" COPPERCLAD GROUND ROD AT PANEL AND SKID, IF SKID DOES NOT PROVIDE A GROUND SYSTEM. TIE BOTH THE TRANSFORMER DERIVED NEUTRAL AND THE SKID POWER PANEL TO THIS GROUND.
- 2" (3)#1+(1)#6G THWN CU. CONDUCTOR LENGTH SHALL BE KEPT TO A MAXIMUM OF 25'-0" BEFORE LANDING ON THE SECONDARY MAIN BREAKER.
- PROVIDE 2"CO, WITH PULL CORD, FROM NEAREST PULLBOX, INTO EXISTING PUMP HOUSE, FOR NEW CONTROLS. COORDINATE WITH EXISTING SITE CONDITIONS.
- PROVIDE A 2"CO, WITH APPROPRIATE PULLCORD, FOR LOW VOLTAGE CONTROLS AND ALARM WIRING. COORDINATE WITH CONTROLS AND ALARM SYSTEM CONTRACTOR FOR WIRING REQUIRED. SEE NOTE 4, ABOVE FOR PULLBOXES. PLACEMENT SHALL BE BASED ON MAXIMUM SPOOL AVAILABLE, AS WELL AS BENDS. RUN CONDUIT WITH WATER LINE TRENCH. COORDINATE TERMINATION AT ALL ENDS WITH OWNER.
- EXISTING PUMP BUILDING. THERE ARE (2) 5HP PUMPS IN THIS SHELTER BEING REPLACED WITH NEW 7.5HP PUMPS ON VFDS. COORDINATE ALL CONNECTION REQUIREMENTS, AND PROVIDE. IN ADDITION, THIS ENCLOSURE HOUSES A BACKUP GENERATOR. AS PART OF THIS CONTRACT, HAVE THIS GENERATOR EVALUATED, TESTED, AND CLEANED. DISCUSS WITH OWNER ANY ISSUES WITH THIS UNIT. TIE BOTH PUMPS AND GENERATOR INTO NEW CONTROLS SYSTEM.
- NEW FIRE PUMP SKID. PROVIDE ALL POWER AND LOW VOLTAGE CONNECTIONS TO IT, AS REQUIRED. SKID SHALL BE AN NRTL LISTED UNIT. COORDINATE EXACT LOCATION FOR POWER AND COMMUNICATIONS CONNECTIONS INTO SKID, WITH FIELD AND SITE CONDITIONS.



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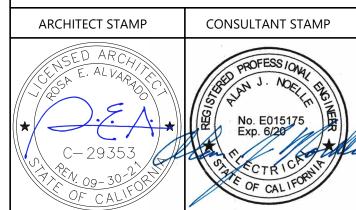
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AGENCY APPROVAL

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Electrical Engineering Lighting Design

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ELECTRICAL SITE PLAN

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SHEFT NO.

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DATE: JANUARY 17, 2020